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THE IRON AGE DIRECTORY

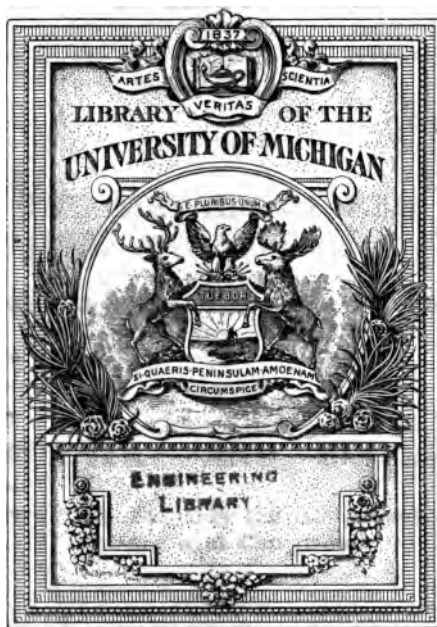
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THE IRON AGE DIRECTORY

**A Classified Index
Of Goods Manufactured by Advertisers in
The Iron Age**

TWELFTH ANNUAL EDITION

Price Twenty-five Cents

**One Copy is sent free to each subscriber to
THE IRON AGE**

DAVID WILLIAMS COMPANY
Publisher of
**The Iron Age, The Metal Worker, and
Carpentry and Building**

New York, May, 1908

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ANNOUNCEMENT.

WE take pleasure in presenting herewith to our subscribers the twelfth annual edition of **THE IRON AGE DIRECTORY**, a classified index of the goods manufactured by the regular advertisers in **THE IRON AGE**. With the cordial co-operation of these manufacturers we have been enabled to enlarge its scope and secure greater accuracy.

For over 50 years **THE IRON AGE** has been the recognized authority in the American Metal Trades and Industries, in whose development it has rendered important service. No other journal of its class has given every week such careful, conscientious attention to the varying phases of the markets, its very large staff consisting of men of long experience and unbiased minds.

The reading columns have not constituted the sole feature of value to our subscribers, but the advertising pages have also furnished a highly appreciated means of communication between seller and buyer which has steadily gained in usefulness as the number and importance of the advertisements have increased and the circulation and influence of the paper have grown.

THE IRON AGE also stands unique in the extent and *character of its subscribers*. They comprise the greatest

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manufacturers in the iron, steel, machinery and hardware trades, the leading wholesale dealers in hardware and machinery, the purchasing agents of nearly every American railroad system of any importance, and retail hardware and metal merchants in every nook and corner of the United States. No other journal in the world has an equal clientage among the buyers in the trades which it represents. In a large proportion of the houses in its line, both large and small, no important purchase is made without reference to it. Its paid foreign circulation is also larger and of a higher character than that of many export journals, so that its advertising pages are found particularly useful to those who are seeking foreign outlets for their products.

The preparation of this book has involved much care and labor and no inconsiderable expense. A copy will be sent to each subscriber, in foreign countries as well as in America. We present it to them in the belief that it will deserve a place in every well organized office and will be found of constant use. Most of the puzzling questions continually arising in every mercantile and manufacturing establishment as to who makes some certain article may be readily answered by reference to **THE IRON AGE DIRECTORY.**

The Iron Age Directory

Abrasives—

Norton Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.
Superior Corundum Wheel Co., Wal-
tham, Mass.

Accumulators, Hydraulic—

Alliance Machine Co., Alliance, O.
American Well Works, Aurora, Ill.
Bethlehem Steel Co., So. Bethlehem, Pa.
Birmingham Iron Foundry, Derby, Ct.
Chambersburg Engineering Co., Cham-
bersburg, Pa.

Chas. F. Elmes Engineering Works, 253-
259 Fulton St., Chicago, Ill.
Mackintosh, Hemphill & Co., Pittsburgh,
Pa.

Mesta Machine Co., Pittsburgh, Pa.
Morgan Construction Co., Worcester,
Mass.

Morgan Engineering Co., Alliance, O.
E. H. Mumford Co., 17th and Callowhill
Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Penn Engineering Works, New Castle, Pa.
Philadelphia Roll & Machine Co., 23d St.
& Washington Ave., Philadelphia, Pa.
Taylor-Wilson Mfg. Co., McKees Rock,
Pa.

United Engineering & Foundry Co., Pitts-
burgh, Pa.

Waterbury Farrel Foundry & Mch. Co.,
Waterbury, Ct.

Watson-Stillman Co., 26 Cortlandt St.,
N. Y.

R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.

MERCHANTS.

Joseph T. Ryerson & Son, 18-22 Milwau-
kee Ave., Chicago, Ill.

Accumulators, Steam—

Watson-Stillman Co., 26 Cortlandt St.,
N. Y.

Acid, Sulphuric—

Illinois Zinc Co., Peru, Ill.
Matthiessen & Hegeler Zinc Co., La
Salle, Ill.

Acid Tanks, Tub or Vats—

Morgan Construction Co., Worcester,
Mass.

Adding, Computing and

Reckoning Machines—

Keuffel & Esser Co., 127 Fulton St., N.Y.

Adjustable Blocking—

(See Blocking, Adjustable.)

Adjusters, Blind—

Boston Pressed Metal Co., Worcester,
Mass.

H. B. Ives Co., New Haven, Ct.
Mallory Mfg. Co., Flemington, N. J.

Millers Falls Co., 23 Warren St., N. Y.
Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.

Wire Goods Co., Worcester, Mass.

Adjusters, Casement—

H. B. Ives Co., New Haven, Ct.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.

Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Adjusters, Hammock, Rope

and Hitching Strap—

Covert Mfg. Co., Troy, N. Y.

Steel Basket Co., Cedar Rapids, Ia.

Adjusters, Transom—

Boston Pressed Metal Co., Worcester,
Mass.

Adjusters, Window Stop—

H. B. Ives Co., New Haven, Ct.

Advertising Literature—

(See Commercial Literature.)

Advertising Novelties—

Fanner Mfg. Co., Cleveland, O.
Globe Machine & Stamping Co., Cleve-
land, O.

Otto Konigslow Mfg. Co., Cleveland, O.
Metal Specialties Mfg. Co., Chicago, Ill.

Risden Tool Works, Inc., Waterbury, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Frank Mossberg Co., Attleboro, Mass.

Advertising Signs and

Trays—
(See Signs and Trays, Lithographed
Metal.)

Advertising Writer—

J. H. Gorham, Bridgeport, Ct.

Adses, Bridge, Carpenters',
Coopers', Railroad, Ship—

Hubbard & Co., Pittsburgh, Pa.
L. & I. J. White Co., Buffalo, N. Y.

Adses, Ice—

(See Ice Harvesting Tools.)

Agents, Bicycle Material

&c.—
John S. Leng's Son & Co., 33 Murray St.,
New York.

Agents, Bicycle Sundries—
John H. Graham & Co., 113 Chambers St.,
New York.

John S. Leng's Son & Co., 33 Murray St.,
New York.

Agents, Chains, Hoist—
Clinton E. Hobbs, Boston, Mass.

Agents, Hardware and Kin-
dred Goods—

Burdett & Williams, Boston, Mass.
John Chatillon & Sons, 85 Cliff St., N. Y.

Alfred Field & Co., 93 Chambers St.,
New York.

General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.

John H. Graham & Co., 113 Chambers St.,
New York.

John S. Leng's Son & Co., 33 Murray
St., New York.

Charles Millar & Son Co., Utica, N. Y.

Tower & Lyon Co., 95 Chambers St.,
New York.

Wiebusch & Hilger, Ltd., 9-15 Murray
St., N. Y.

Agents, L-Beam, Trolley—
Clinton E. Hobbs, Boston, Mass.

Agents, Phonograph—

John S. Leng's Son & Co., 33 Murray St., New York.

Agricultural Bolts, Chains, Shapes—

(See Bolts, Chains, Shapes.)

Agricultural Implements—

Bateman Mfg. Co., Grenloch, N. J.
Cutsaway Harrow Co., Higganum, Ct.
Keystone Farm Machine Co., York, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Long & Allstatter Co., Hamilton, O.
Whitman & Barnes Mfg. Co., Chicago.

Agricultural Machinery—

Buffalo Forge Co., Buffalo, N. Y.
Ney Mfg. Co., Canton, O.

Air Chambers, Seamless Copper—

Naugatuck Mfg. Co., Naugatuck, Ct.

Air Gauges, Receivers, Tanks—

(See Gauges, Receivers, Tanks.)

Air Washers—

(See Washers, Air.)

Alarm Whistles—

(See Whistles, Alarm.)

Alarms, Electric, Burglar—

Nanz Clock Co., 127 Duane St., N. Y.
W. R. Ostrander & Co., 22 Dey St., N. Y.

Alarms, Electrical Tank—

W. R. Ostrander & Co., 22 Dey St., New York.

Alarms, High and Low Water—

Lunkenheimer Co., Cincinnati, O.

Alloys, Electrical Resistance—

Driver-Harris Wire Co., Harrison, N. J.

Alloys, Gold and Silver—

Riverside Metal Co., Riverside, N. J.

Alloys, Nickel—

Scovill Mfg. Co., Waterbury, Ct.

Seymour Mfg. Co., Seymour, Ct.

Alloys, Vanadium—

Vanadium Alloys Co., 25 Broad St., N. Y.

Altar Bells—

(See Bells, Altar and Lodge.)

Aluminum—

Aluminum Co. of America, Pittsburgh, Pa.

MERCHANTS.

Empire Metal Co., Syracuse, N. Y.

Janney, Steinmetz & Co., Philadelphia.

Aluminum Bars, Castings, &c.—

(See Bars, Castings, &c.)

Aluminum, Bronze—

Ohio Brass Co., Mansfield, O.

Aluminum Coins—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Aluminum, Granulated—

Aluminum Co. of America, Pittsburgh, Pa.

Aluminum, Ingot—

Aluminum Co. of America, Pittsburgh, Pa.

Aluminum, Perforated Sheet—

Erdle Perforating Co., Rochester, N. Y.
Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Headrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 441 Pearl St., N. Y.

Ammeters—

Bristol Co., Waterbury, Ct.

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Weston Electrical Instrument Co., Newark, N. J.

Zucker & Levett & Loeb Co., 526-530 W. 25th St., New York.

Ammeters, Recording—

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Ammonia Fittings—

(See Fittings, Ammonia.)

Ammunition—

(See Caps, Cartridges, Primers, Shells, Wads.)

Ampere Recording Meters—

(See Meters, Ampere Recording.)

Anchor Bolts—

(See Bolts, Anchor.)

Anchor, Building—

Belmont Iron Works, Inc., Philadelphia.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

W. J. Clark Co., Salem, O.

M. Lanz & Sons, Pittsburgh, Pa.

Western Foundry & Sash Weight Co., St. Louis, Mo.

Anchor, Post—

(See Telegraph and Telephone.)

Anchor, Screw—

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Star Expansion Bolt Co., 147-149 Cedar St., New York.

Anchor, Ship, Boat, &c.—

Thomas Laughlin Co., Portland, Me.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Andirons—

Anchor Post Iron Works, 42 Park Row, N. Y.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

R. W. Whitehurst Co., Norfolk, Va.

Anemometers—

Keuffel & Esser Co., 127 Fulton St., New York.

Angle Bars—

Carnegie Steel Co., Pittsburgh, Pa.

Hirsch Rolling Mill Co., St. Louis, Mo.

Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.

Lackawanna Steel Co., 100 Broadway, New York.

C. Pardee Works, Perth Amboy, N. J.

Republic Iron & Steel Co., Pittsburgh, Pa.

MERCHANTS.

Houne-Fuller Co., Cleveland, O.

General Supply-Iron-Steel & Rail Co., Cincinnati, O.

North Works, Illinois Steel Co., Chicago, Ill.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Walter A. Zelnicker Supply Co., St. Louis.

Angle Bore Bit Stock—
(See Bit Stock, Angle Boring.)

Angle Drives—
(See Couplings, Quarter Turn Shaft.)

Angles and Tees—
American Bridge Co. of New York, 42 Broadway, New York.

American Tube & Stamping Co., Bridgeport, Ct.

Bethlehem Steel Co., So. Bethlehem, Pa.

Carnegie Steel Co., Pittsburgh, Pa.

Elyria Iron & Steel Co., Elyria, O.

Forest City Steel & Iron Co., Cleveland, O.

Hirsch Rolling Mill Co., St. Louis, Mo.

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.

Jones & Laughlin Steel Co., Pittsburgh.

Lackawanna Steel Co., 2 Rector St., N.Y.

Lockhart Iron & Steel Co., Pittsburgh.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

Tennessee Coal, Iron & B. B. Co., 71 Broadway, New York.

MERCHANTS.
Belmont Iron Works, Inc., Philadelphia.

Bourne-Fuller Co., Cleveland, O.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

Arthur C. Harvey Co., Boston, Mass.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

W. N. Kratzer & Co., Pittsburgh, Pa.

North Works, Illinois Steel Co., Chicago, Ill.

Ogden & Wallace, 577 Greenwich St., New York.

Pierson & Co., 29 Broadway, New York.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Angles and Tees, Galvanized—
(See Galvanized Angles, Bars, &c.)

Animal Cages, Tethers—
(See Cages, Tethers.)

Annealing—
Blake & Johnson Co., Waterbury, Ct.

Cape Ann Tool Co., Pigeon Cove, Mass.

Hubley Mfg. Co., Lancaster, Pa.

Kidd Bros. & Burgher Steel Wire Co., Alliquippa, Pa.

I. S. Spencer's Sons, Guilford, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Annunciator Wire—
(See Wires, Electrical.)

Annunciators—
Nanz Clock Co., 127 Duane St., N. Y.

W. R. Ostrander & Co., 22 Dey St., N. Y.

Anodes, Copper and Bronze—
Bridgeport Brass Co., 253 Broadway, N.Y.

H. A. Matthews Mfg. Co., Seymour, Ct.

Seymour Mfg. Co., Seymour, Ct.

Anodes, Nickel—
Seymour Mfg. Co., Seymour, Ct.

Anti-Friction Metal—
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

Hercules Brass & Bell Foundry, Cincinnati, O.

Theo. Hiertz Metal Co., St. Louis, Mo.

Hyde Bros. & Co., Pittsburgh, Pa.

Magnolia Metal Co., 113-115 Bank St., New York.

Merchant & Evans Co., Philadelphia, Pa.

Ohio Brass Co., Mansfield, O.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Pittsburgh White Metal Co., Pittsburgh.

Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

MERCHANTS.
Dodge Mfg. Co., Mishawaka, Ind.

Hill, Clark & Co., Boston, Mass.

Antimony—
American Metal Co., 52 Broadway, N. Y.

Geo. C. Blackwell Sons & Co., Ltd., The Albany, Liverpool, England.

Empire Metal Co., Syracuse, N. Y.

Hendricks Bros., 49 Cliff St., New York.

Theo. Hiertz Metal Co., St. Louis, Mo.

Merchant & Evans Co., Philadelphia, Pa.

Pittsburgh White Metal Co., Pittsburgh.

Waite, Ranlet & Co., Boston, Mass.

Anti-Rattlers, Carriage or

Thill—
Fernald Mfg. Co., North East, Pa.

F. E. Kohler & Co., Canton, O.

New York Belting & Packing Co., 91-93 Chambers St., New York.

Raymond Mfg. Co., Corry, Pa.

Sabin Machine Co., Montpelier, Vt.

Anti-Seale Preparations—
Smooth On Mfg. Co., Jersey City, N. J.

Anvil and Vise—
Billings & Spencer Co., Hartford, Ct.

Eagle Anvil Works, Trenton, N. J.

Anvil, Drill and Vise—
(See Vises, Drill and Anvil.)

Anvils, Axe Makers'—
Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Anvils, Bench—
Columbus Forge & Iron Co., Columbus, O.

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Anvils, Bit Makers'—
Eagle Anvil Works, Trenton, N. J.

Anvils, Blacksmiths'—
Columbus Forge & Iron Co., Columbus, O.

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Anvils, Chain Makers'—
Columbus Forge & Iron Co., Columbus, O.

Eagle Anvil Works, Trenton, N. J.

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Anvils, Chisel Makers'—
Eagle Anvil Works, Trenton, N. J.

Anvils, Cutler—
Eagle Anvil Works, Trenton, N. J.

Anvils, Farmers' or Domestic—

Columbus Forge & Iron Co., Columbus, O.
Eagle Anvil Works, Trenton, N. J.
Hay-Budden Mfg. Co., Brooklyn, N. Y.
Millers Falls Co., 28 Warren St., N. Y.

Anvils, Farriers'—

Eagle Anvil Works, Trenton, N. J.
Hay-Budden Mfg. Co., Brooklyn, N. Y.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Anvils, File Makers'—

Eagle Anvil Works, Trenton, N. J.

Anvils, for Special Purposes, to Order—

Eagle Anvil Works, Trenton, N. J.

Anvils, Instrument Makers'—

Eagle Anvil Works, Trenton, N. J.

Anvils, Jewelers'—

Bancroft & Co., Philadelphia, Pa.
Billings & Spencer Co., Hartford, Ct.
Prentiss Vise Co., 44 Barclay St., N. Y.

Anvils, Plow Makers'—

Columbus Forge & Iron Co., Columbus, O.
Eagle Anvil Works, Trenton, N. J.
Hay-Budden Mfg. Co., Brooklyn, N. Y.

Anvils, Razor Makers'—

Eagle Anvil Works, Trenton, N. J.

Anvils, Saw Makers'—

E. O. Atkins & Co., Indianapolis, Ind.
Columbus Forge & Iron Co., Columbus, O.
Henry Disston & Sons, Philadelphia, Pa.
Eagle Anvil Works, Trenton, N. J.
Hay-Budden Mfg. Co., Brooklyn, N. Y.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Anvils, Tool Makers'—

Columbus Forge & Iron Co., Columbus, O.
Eagle Anvil Works, Trenton, N. J.
Hay-Budden Mfg. Co., Brooklyn, N. Y.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Apple Corers and Parers—

(See Parers, Apple.)

Apron Carriers, Endless—

(See Carriers, Apron.)

Aprons, Cotton and Wool—

Clinton Wire Cloth Co., Clinton, Mass.

Aprons, Leather—

Graton & Knight Mfg. Co., Worcester, Mass.

Aprons, Mechanics', Carpenters' &c.—

Specialty Mfg. Co., St. Anthony Park, Minn.

Arbors—

(See Mandrels.)

Arbors, Circular Saw—

E. C. Atkins & Co., Indianapolis, Ind.
Badger State Machine Co., Janesville, Wis.

Henry Disston & Sons, Philadelphia, Pa.

Goodell-Pratt Co., Greenfield, Mass.

Hobbs Mfg. Co., Worcester, Mass.

National Saw Co., Newark, N. J.

Oliver Machinery Co., Grand Rapids, Mich.

Simonds Mfg. Co., Fitchburg, Mass.

Wickes Bros., Saginaw, Mich.

Arbors for Drill Chucks—

Morse Twist Drill & Machine Co., New Bedford, Mass.

Oneida National Chuck Co., Oneida, N. Y.

Standard Tool Co., Cleveland, O.

Union Mfg. Co., New Britain, Ct.

Arbors for Shell End Mills—

(See Arbors for Drill Chucks.)

Arbors for Shell Reamers—

Brown & Sharpe Mfg. Co., Providence, R. I.

Cleveland Twist Drill Co., Cleveland, O.

Morse Twist Drill & Mch. Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

Whitaker Mfg. Co., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago.

Arc Lamps—

(See Lamps, Arc.)

Arches, Cemetery—

(See Trellises, Wire.)

Arches, Curved, Corrugated—

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Empire Iron & Steel Co., Niles, O.

Globe Iron Roofing & Corrugating Co., Cincinnati, O.

McCullough Iron Co., Wilmington, Del.

Newport Rolling Mill Co., Newport, Ky.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Arches, Wire—

(See Trellises, Wire.)

Architectural Iron Work—

(See Structural Material.)

Architectural Sheet Metal Work—

E. B. Badger & Sons Co., Boston, Mass.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

G. Drouve Co., Bridgeport, Ct.

Eller Mfg. Co., Canton, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Armature Binding Wire—

(See Wires, Electrical.)

Armature Disc Notching Machines—

(See Notching Machines, Armature Disc.)

Armature Discs—

(See Discs, Armature.)

Armature Sheets—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Armored Wire—

(See Wires, Electrical.)

Armor Sealing Machines—

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Arms, Cable—

(See Telegraph and Telephone Pole Supplies.)

Army and Navy Scales—

(See Scales, Army and Navy.)

Arresters, Lightning—

General Electric Co., Schenectady, N. Y.

Ohio Brass Co., Mansfield, O.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Arresters, Spark—

Byram & Co., Detroit, Mich.

Erdle Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Michigan Wire Cloth Co., Detroit, Mich.

Charles Mundt & Sons, 44-46 Pearl St., New York.

- J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
 J. D. Smith Foundry Supply Co., Cleveland, O.
Art Metal Work—
 Buffalo Wire Works Co., Buffalo, N. Y.
 Yale & Towne Mfg. Co., 9 Murray St., New York.
Artesian Well Pumps—
 (See Pumps, Artesian Well.)
Artesian Well Supplies and Tools—
 (See Well Supplies and Tools.)
Asbestos Pipe and Boiler Coverings—
 (See Coverings, Pipe and Boiler.)
Ash Cans, Sieves, Sifters—
 (See Cans, Sieves, Sifters.)
Ash Pan Ears—
 (See Ears, Ash Pan and Kettle.)
Ashes and Coal Handling Stations for Locomotives—
 Link Belt Co., Inc., Philadelphia, Pa.
 Webster Mfg. Co., 1075-1111 West Fifteenth St., Chicago, Ill.
Asphalt, Refined—
 Asphalt Ready Roofing Co., 136 Water St., New York.
 National Roofing Co., Tonawanda, N. Y.
 Stowell Mfg. Co., Jersey City, N. J.
Asphalt Roof Coating—
 Asphalt Ready Roofing Co., 136 Water St., New York.
 National Roofing Co., Tonawanda, N. Y.
 Stowell Mfg. Co., Jersey City, N. J.
Asphalt Roofing—
 (See Roofing, Asphalt.)
Aspirators, Steam, Water or Air—
 Uehling Instrument Co., Passaic, N. J.
Attachments, Pipe Wrench—
 (See Wrench Attachments, Pipe.)
Attachments, Sash Cord and Ribbon—
 (See Irons, Sash Cord and Ribbon.)
Auctioneers—
 E. Bissell & Co., 57 Mercer St., N. Y.
Auger Handles—
 (See Handles, Auger.)
Augers and Bits, Brace, Boring Machine, Car, Millwrights', Rafting, Ship, &c.—
 Connecticut Valley Mfg. Co., Centerbrook, Ct.
 Ford Auger Bit Co., Holyoke, Mass.
 John H. Graham & Co., 113 Chambers St., New York.
 Irwin Auger Bit Co., Wilmington, O.
 C. E. Jennings & Co., 42 Murray St., New York.
 Russell Jennings Mfg. Co., Chester, Ct.
 Kilborn & Bishop Co., New Haven, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Job T. Pugh, 31st and Ludlow Sts., Philadelphia, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 Snell Mfg. Co., Flakdale, Mass.
 James Swan Co., Seymour, Ct.
 Tower & Lyon Co., 95 Chambers St., N. Y.
Augers, Breast—
 Hubbard & Co., Pittsburgh, Pa.
Augers, Hollow—
 Millers Falls Co., 28 Warren St., N. Y.
 Silver Mfg. Co., Salem, O.
 James Swan Co., Seymour, Ct.
Augers, Ice—
 (See Ice Harvesting Tools.)
Augers, Post Hole—
 Iwan Bros., Streator, Ill.
Augers, Twist—
 Hubbard & Co., Pittsburgh, Pa.
Autographic Cash Recorders—
 (See Recorders, Cash, Autographic.)
Automobile Chains—
 (See Chains, Automobile.)
Automobile Fenders—
 E. B. Badger & Sons Co., Boston, Mass.
Automobile Forgings—
 (See Forgings, Automobile.)
Automobile Hoods—
 E. B. Badger & Sons Co., Boston, Mass.
Automobile Lamps—
 (See Lamps, Automobile, Acetylene and Oil.)
Automobile License Pads—
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Automobile Lubricants—
 (See Lubricants, Automobile.)
Automobile Monograms—
 (See Monograms, Automobile.)
Automobile Parts—
 American Tube & Stamping Co., Bridgeport, Ct.
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Billings & Spencer Co., Hartford, Ct.
 Boston Gear Works, Norfolk Downs, Mass.
 Boston Pressed Metal Co., Worcester, Mass.
 Chicago Screw Co., 2 Canal St., Chicago, Ill.
 Clark Novelty Co., Rochester, N. Y.
 Crosby Co., Buffalo, N. Y.
 Detroit Screw Works, Detroit, Mich.
 Diamond Chain & Mfg. Co., Indianapolis, Ind.
 Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
 Globe Machine & Stamping Co., Cleveland, O.
 Hartford Machine Screw Co., Hartford, Ct.
 Janney, Steinmetz & Co., Philadelphia.
 Keystone Steel Castings Co., Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Otto Konigslaw Mfg. Co., Cleveland, O.
 Lebanon Steel Casting Co., Lebanon, Pa.
 Lunkenheimer Co., Cincinnati, O.
 Mason Regulator Co., Boston, Mass.
 National Cycle Mfg. Co., Bay City, Mich.
 Ohio Brass Co., Mansfield, O.
 Thomas Prosser & Son, 26 Platt St., N. Y.
 Richmond Forgings Corporation, Richmond, Va.
 Sparks-Withington Co., Ltd., Jackson, Mich.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 Strieby & Foote Co., Newark, N. J.
 Susquehanna Casting Co., Wrightsville, Pa.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
 Whitlock Coil Pipe Co., Hartford, Ct.
 Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.
 (See also Automobile Fittings.)

**Automobile Parts, Hard-
ened and Ground—**
Detroit Screw Works, Detroit, Mich.

Automobile Pumps—
(See Pumps, Bicycle and Automobile.)

**Automobile Screw Machine
Products—**
(See Screw Machine Products.)

Automobile Springs—
(See Springs, Automobile.)

Automobile Starters—
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

**Automobile Steering De-
vices—**
Boston Gear Works, Norfolk Downs,
Mass.

Otto Konigsow Mfg. Co., Cleveland, O.
Ohio Brass Co., Mansfield, O.

Automobile Tanks—
(See Tanks, Automobile.)

**Automobile Tire Repair
Sleeve—**
Graton & Knight Mfg. Co., Worcester,
Mass.

Automobile Turn Tables—
Bicycle Stepladder Co., 65 Randolph St.,
Chicago, Ill.

Automobiles—
J. Stevens Arms & Tool Co., Chicopee
Falls, Mass.

Automobiles, Child's—
Kirk-Latty Mfg. Co., Cleveland, O.

Awl Hafts—
(See Handles, Chisel, File, Awl, &c.)

Awl Handles—
(See Handles, Chisel, File, Awl, &c.)

Awls, Belt—
(See Awls, Scratch, Belt, &c.)

Awls, Brad—
(See Awls, Peg, Brad, &c.)

Awls, Ice—
(See Picks and Awls, Ice.)

Awls, Peg, Brad, &c.—
H. H. Mayhew Co., Shelburne Falls,
Mass.

**Stanley Rule & Level Co., New Britain,
Ct.**

Awls, Scratch, Belt, &c.—
Billings & Spencer Co., Hartford, Ct.

Buck Bros., Millbury, Mass.
Ducharmes & Co., Shelburne Falls, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.
Millers Falls Co., 28 Warren St., N. Y.

Niagara Machine & Tool Works, Buffalo,
N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Stanley Rule & Level Co., New Britain,
Ct.

James Swan Co., Seymour, Ct.
Tuck Mfg. Co., Brockton, Mass.

Awls, Ship Carpenters—
Ducharmes & Co., Shelburne Falls, Mass.

Awls, Thong—
(See Awls, Scratch, Belt, &c.)

Awls, Tinners—
(See Awls, Scratch.)

**Awning Fixtures, Rod
Gear—**
Ottmanns & Schmidt, Peoria, Ill.

Awning Hardware—
Thomas Laughlin Co., Portland, Me.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
Wilcox, Crittenden & Co., Inc., Middle-
town, Ct.

**Awning Hinges, Hooks,
Pulleys—**
(See Hinges, Hooks, Pulleys.)

Awnings—
Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

Forest City Steel & Iron Co., Cleveland, O.
Globe Iron Roofing & Corrugating Co.,
Cincinnati, O.

Wm. B. Scaife & Sons Co., Pittsburgh.
Stewart Iron Works Co., Cincinnati, O.

**Awnings, Combination Win-
dow and Screen—**

Phenix Mfg. Co., Milwaukee, Wis.

**Awnings, Curved Corru-
gated—**

Newport Rolling Mill Co., Newport, Ky.

Awnings, Hammock—
I. E. Palmer, Middletown, Ct.

**Axe Brackets, Racks,
Stones—**
(See Brackets, Racks, Stones.)

Axe Factory Machinery—
J. Howard Lingle Co., Bellefonte, Pa.

Axes, Boys' Handled—
Peck, Stow & Wilcox Co., 27 Murray
St., N. Y.

Axes, Broad—
L. & I. J. White Co., Buffalo, N. Y.

Axes, Coopers—
L. & I. J. White Co., Buffalo, N. Y.

Axes, Dock—
L. & I. J. White Co., Buffalo, N. Y.

Axes, Fireman's—
L. & I. J. White Co., Buffalo, N. Y.

Axes, Hand—
L. & I. J. White Co., Buffalo, N. Y.

Axes, Ice—
Gifford-Wood Co., Arlington, Mass.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

L. & I. J. White Co., Buffalo, N. Y.

Axes, Shin—
L. & I. J. White Co., Buffalo, N. Y.

**Axe Clips, Cutters, Grease,
&c.—**
(See Clips, Cutters, Grease, &c.)

Axe Iron—
(See Iron, Axe.)

Axe Straightening Presses—
(See Straightening Presses, Axe.)

Axes and Wheels—
Atlas Car & Mfg. Co., Cleveland, O.

Chase Foundry & Mfg. Co., Columbus, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Arthur Koppel Co., Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Thomas Prosser & Son, 26 Platt St., N.Y.

Axes, Automobile—
Bethlehem Steel Co., So. Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.
Thomas Prosser & Son, 26 Platt St., N.Y.

Standard Roller Bearing Co., 48th St. &
Girard Ave., Philadelphia, Pa.

Axles, Baby Carriage—
E. R. Wagner Mfg. Co., North Milwaukee, Wis.

Axles, Car—
American Bridge Co. of New York, 42 Broadway, New York.
Atlas Car & Mfg. Co., Cleveland, O.
Carnegie Steel Co., Pittsburgh, Pa.
Cleveland City Forge & Iron Co., Cleveland, O.
Arthur Koppel Co., Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Otis Steel Co., Limited, Cleveland, O.
Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
Portsmouth Forge, Portsmouth, N. H.
Thomas Prosser & Son, 26 Platt St., N.Y.
Sheffield Car Co., Three Rivers, Mich.
Tindal-Morris Co., Eddystown, Pa.
Titusville Forge Co., Titusville, Pa.
Ernst Wiener Co., Broad and Beaver Sts., New York.

MERCHANTS.
Bourne-Fuller Co., Cleveland, O.
General Supply-Iron-Steel & Rail Co., Cincinnati, O.
Pierson & Co., 29 Broadway, New York.

Axles, Carriage and Wagon—
F. W. Wurster & Co., Brooklyn, N. Y.

Axles, Folding Cart—
E. R. Wagner Mfg. Co., North Milwaukee, Wis.

Axles, Forged Steel or Iron—
American Bridge Co. of New York, 42 Broadway, New York.
Bethlehem Steel Co., So. Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.
Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
Portsmouth Forge, Portsmouth, N. H.
Thomas Prosser & Son, 26 Platt St., N.Y.
Western Malleable Steel Co., Detroit, Mich.

Axles, Go-Cart—
E. R. Wagner Mfg. Co., North Milwaukee, Wis.

Axles, Locomotive, Driving and Truck—
Bethlehem Steel Co., So. Bethlehem, Pa.
B. M. Jones & Co., Inc., Boston, Mass.
Otis Steel Co., Ltd., Cleveland, O.
Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
Portsmouth Forge, Portsmouth, N. H.
Thomas Prosser & Son, 26 Platt St., N.Y.

Babbitt Metal—
Chas. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.
Bethlehem Steel Co., So. Bethlehem, Pa.
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.
Clum & Atkinson, Rochester, N. Y.
Dodge Mfg. Co., Mishawaka, Ind.
Empire Metal Co., Syracuse, N. Y.
Hercules Brass & Bell Foundry, Cincinnati, O.
Theo. Hertz Metal Co., St. Louis, Mo.
Hyde Bros. & Co., Pittsburgh, Pa.
Magnolia Metal Co., 113-115 Bank St., New York.

Merchant & Evans Co., Philadelphia, Pa.
Milwaukee T. Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, O.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
Pittsburgh White Metal Co., Pittsburgh.
Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
Walter A. Zelnick Supply Co., St. Louis, Mo.

Back Saws—
(See Saws, Hand, Panel, Back, &c.)

Backs, Sink—
Barnes Mfg. Co., Mansfield, O.
Humphreys Mfg. Co., Mansfield, O.

Badges and Medals—
American Railway Supply Co., 24 Park Place, New York.
Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Schwerdtle Stamp Co., Bridgeport, Ct.
R. Woodman Mfg. & Supply Co., Boston.

Bag Fillers, Locks—
(See Fillers, Locks.)

Bagasse, Conveyors, Furnaces—
(See Conveyors, Furnaces.)

Baggage Checks—
(See Checks, Baggage, Keys, &c.)

Baggage, Hardware—
North & Judd Mfg. Co., New Britain, Ct.

Bags, School—
I. E. Palmer, Middletown, Ct.

Bails, Forged Iron—
Titusville Forge Co., Titusville, Pa.

Balls, Kettle, Oil Stove, &c.—
Fanner Mfg. Co., Cleveland, O.

Ballwoods—
(See Woods, Ball.)

Balt, Trolling—
Andrew B. Hendryx Co., New Haven, Ct.

Bakers' and Confectioners' Tools, Machines, &c. (Ovens, Yeast Buckets, Pie Racks, Scrapers, Basins, Cake Pans, Cake Cutters, Sieves, &c.)—
Garbour-Stockwell Co., Cambridgeport, Mass.

Bakers, Wire—
Morgan Construction Co., Worcester, Mass.

Baking Pans—
(See Pans, Baking and Roasting.)

Balances and Scales, Assay—
Eimer & Amend, 205 Third Ave., N. Y.

Balances, Sash (House, Car, Ship, &c.)—
Caldwell Mfg. Co., Rochester, N. Y.
Pullman Mfg. Co., Rochester, N. Y.

Balances, Spring—
John Chatillon & Sons, 85 Cliff St., N. Y.
Landers, Fray & Clark, New Britain, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Balconies—
(See Iron Work, Builders', &c.)

Bale Ties—
(See Ties.)

Baling Wire—
(See Wire, Baling.)

Ball Bearing Cups and Cones—
(See Cups and Cones, Ball Bearing.)

Ball Bearings—
(See Bearings, Ball.)

Ball Cocks—
Julian D'Eate Co., Boston, Mass.

Ball Floats, Copper—
(See Floats, Copper Ball.)

- Ball Joints—**
(See Joints, Universal.)
- Balling Irons—**
(See Irons, Balling.)
- Ballots, Society—**
H. O. Canfield Co., Bridgeport, Ct.
- Balls and Pins, Ten Pin—**
Boston & Lockport Block Co., Boston.
John Sommer's Son, Newark, N. J.
- Balls, Brass—**
Lunkenheimer Co., Cincinnati, O.
Pressed Steel Mfg. Co., Ridge Ave. &
Willow St., Philadelphia, Pa.
Standard Roller Bearing Co., 48th St. &
Girard Ave., Philadelphia, Pa.
- Balls, Bronze—**
Standard Roller Bearing Co., 48th St. &
Girard Ave., Philadelphia, Pa.
- Balls, Cement Mill—**
Bethlehem Steel Co., So. Bethlehem, Pa.
- Balls for Grinding Machines—**
Strieby & Foote Co., Newark, N. J.
- Balls, Fuller Rubber—**
New York Belting & Packing Co., 91-93
Chambers St., New York.
- Balls, Ox—**
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
- Balls, Steel—**
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.
Walter W. Woodruff & Sons Co., Mount
Carmel, Ct.
- Balls, Tank, Rubber—**
H. O. Canfield Co., Bridgeport, Ct.
- Balusters, Spun—**
(See Architectural Sheet Metal Work.)
- Band Chimes—**
(See Chimes, Church and Band.)
- Band Cutter and Nail Puller—**
(See Nail Puller and Band Cutter.)
- Band Iron—**
(See Hoops and Bands.)
- Band Saws—**
(See Saws, Band.)
- Band Saws for Metal—**
(See Saws, Band, for Metals.)
- Band Saw, Steel—**
(See Steel, Band Saw.)
- Bands, Gaß, Boom and Mast—**
W. & J. Tiebout, 118 Chambers St., N. Y.
- Bands, Hose—**
(See Hose Attachments.)
- Bands, Neck Yoke—**
Advance Mfg. Co., Racine Junc., Wis.
Wrought Washer Mfg. Co., Milwaukee,
Wis.
- Bands, Shingle—**
Acme Steel Goods Co., 2834-2840 Archer
Ave., Chicago, Ill.
Walter A. Zelnicker Supply Co., St.
Louis, Mo.
- Bands, Vehicle, Hub, Sand and Mud—**
Sparks-Withington Co., Ltd., Jackson,
Mich.
- Standard Welding Co., Cleveland, O.**
- Walter W. Woodruff & Sons Co., Mount Carmel, Ct.**
- Bank Fixtures—**
Glen Mfg. Co., Ellwood City, Pa.
- Banks, Saving, Household—**
Boston Pressed Metal Co., Worcester,
Mass.
- Banquet Lamps—**
(See Lamps, Table, Banquet, &c.)
- Barb Wire—**
(See Wire, Barb.)
- Barb Wire Machines—**
Wilber Emery, Wilmington, Del.
Henry Perkins Co., Bridgewater, Mass.
- Barbers' Shears—**
(See Shears, Barbers'.)
- Barbing Machines, Wire Nail—**
H. J. Miller's Sons, Bridgewater, Mass.
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.
- Barges and Hulls, Steel—**
American Bridge Co. of New York, 42
Broadway, New York.
Newport News Shipbuilding & Dry Dock
Co., Newport News, Va.
- Barn Door Bolts—**
(See Bolts, Barn Door.)
- Barn Door Stay Rollers—**
(See Rollers, Stay.)
- Barometers—**
Keuffel & Esser Co., 127 Fulton St.,
New York.
- Barrel Covers, Drainers, Elevators, &c.—**
(See Covers, Drainers, Elevators, &c.)
- Barrel Machinery and Tools—**
Badger State Machine Co., Janesville,
Wis.
Peter Gerlach Co., Cleveland, O.
Humphrey Machine Co., Keene, N. H.
- Barrels and Half Barrels, Steel—**
W. J. Clark Co., Salem, O.
Kilbourne & Jacobs Mfg. Co., Colum-
bus, O.
Terrell's Equipment Co., Grand Rapids,
Mich.
- Barrels, Ash and Garbage—**
(See Cans, Ash and Garbage.)
- Barrels, Brass, Working, Oil and Artesian Wells—**
Barnes Mfg. Co., Mansfield, O.
- Barrels, Hoisting—**
W. J. Clark Co., Salem, O.
- Barrels, Plating, for Small Articles—**
Hanson & Van Winkle Co., Newark, N.J.
U. S. Electro-Galvanizing Co., Brooklyn,
N. Y.
- Barrels, Rifle—**
J. Stevens Arms & Tool Co., Chicopee
Falls, Mass.
- Barrels, Seamless Steel—**
Pressed Steel Tank Co., Milwaukee, Wis.
- Barrels, Shipping—**
(See Drums and Barrels.)
- Barrels, Steel—**
W. J. Clark Co., Salem, O.
Wm. B. Scaife & Sons Co., Pittsburgh.
- Barrels, Tumbling—**
Baird Machine Co., Oak Hills, Ct.
Byram & Co. (Inc.), Detroit, Mich.
Falls Rivet & Machine Co., Cuyahoga
Falls, O.

J. Gilmour, Bennett Bldg., New York.
Globe Machine & Stamping Co., Cleveland, O.

Henderson Bros., Waterbury, Ct.
Kimball Bros. & Sprague, Brockton, Mass.

H. J. Miller's Sons, Bridgewater, Mass.
Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Peckman Mfg. Co., Newark, N. J.
Henry Perkins Co., Bridgewater, Mass.

Royersford Foundry & Machine Co., Royersford, Pa.
Sheffield Car Co., Three Rivers, Mich.

J. D. Smith Foundry Supply Co., Cleveland, O.
Tudor Boiler Mfg. Co., Cincinnati, O.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Walton & Macke, Kokomo, Ind.

Whiting Foundry Equipment Co., Harvey, Ill.

Barrow Wheels—

(See Wheels, Barrow.)

Barrows, Charging Foundry—

Bryan & Co., Detroit, Mich.

Barrows, Hand—

W. J. Clark Co., Salem, O.

Barrows, Smelter—

Kilbourne & Jacobs Mfg. Co., Columbus, O.
(See Toy Barrows.)

Barrows, Wheel, Ash, Coal, Coke, Charcoal, &c.—

Atlas Car & Mfg. Co., Cleveland, O.
C. W. Hunt Co., West New Brighton, N. Y.

Keystone Farm Machine Co., York, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Osborn Mfg. Co., Cleveland, O.
J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.
Steel Basket Co., Cedar Rapids, Ia.

Syracuse Chilled Plow Co., Syracuse, N. Y.
Ernst Wiener Co., Broad and Beaver Sts., New York.

Barrows, Wheel, Baggage—

Atlas Car & Mfg. Co., Cleveland, O.
Boston & Lockport Block Co., Boston, Mass.

Kilbourne & Jacobs Mfg. Co., Columbus, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Brick—

American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Barrows, Wheel, Canal or Railroad—

American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.
J. D. Smith Foundry Supply Co., Cleveland, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Canning Factory—

Boston & Lockport Block Co., Boston.

Barrows, Wheel, Charging and Ore—

Atlas Car & Mfg. Co., Cleveland, O.
C. W. Hunt Co., West New Brighton, N. Y.

Kilbourne & Jacobs Mfg. Co., Columbus, O.
Meehan Boiler & Construction Co., Lowellville, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.
J. D. Smith Foundry Supply Co., Cleveland, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.
Ernst Wiener Co., Broad and Beaver Sts., New York.

Barrows, Wheel, Dirt—

American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.

Keystone Farm Machine Co., York, Pa.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Osborn Mfg. Co., Cleveland, O.
J. D. Smith Foundry Supply Co., Cleveland, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Foundry and Smelting—

Barrows, Wheel, Garden—

Atlas Car & Mfg. Co., Cleveland, O.
Keystone Farm Machine Co., York, Pa.

Kilbourne & Jacobs Mfg. Co., Columbus, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, General Purpose—

American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.
Osborn Mfg. Co., Cleveland, O.

J. D. Smith Foundry Supply Co., Cleveland, O.
Steel Basket Co., Cedar Rapids, Ia.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Mining—

Atlas Car & Mfg. Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Osborn Mfg. Co., Cleveland, O.
J. D. Smith Foundry Supply Co., Cleveland, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Mortar or Concrete—

American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.
Steel Basket Co., Cedar Rapids, Ia.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Barrows, Wheel, Oyster—

Atlas Car & Mfg. Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

- Barrows, Wheel, Packing-house**—
Atlas Car & Mfg. Co., Cleveland, O.
Boston & Lockport Block Co., Boston.
C. W. Hunt Co., West New Brighton, N. Y.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Barrows, Wheel, Pig Metal**—
Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Barrows, Wheel, Salt**—
American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
- Barrows, Wheel, Stable or Sawdust**—
Atlas Car & Mfg. Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.
- Barrows, Wheel, Stave**—
American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Barrows, Wheel, Stone**—
American Fork & Hoe Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.
- Barrows, Wheel, Tile**—
Atlas Car & Mfg. Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.
- Barrows, Wheel, Toy**—
(See Toy Barrows, Wheel.)
- Barrows, Wheel, Tubular Frame**—
(See Barrows, Wheel, Ash, Coal, Coke, Dirt, General Purpose, Mining, Pig Metal.)
- Barrows, Wheel, Wharf or Phosphate**—
Atlas Car & Mfg. Co., Cleveland, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.
- Bars, Acid Open Hearth**—
Andrews Steel Co., Newport, Ky.
- Bars, Aluminum**—
Aluminum Co. of America, Pittsburgh.
- Bars and Loops, Garment Hanger**—
Pullman Mfg. Co., Rochester, N. Y.
Wire Goods Co., Worcester, Mass.
- Bars and Segments, Commutator**—
Billings & Spencer Co., Hartford, Ct.
Cleveland Drop Forging Co., Cleveland, O.
Keystone Drop Forge Works, Chester, Pa.
Read Bros. & Burgher Steel Wire Co., Alliquippa, Pa.
Kilborn & Bishop Co., New Haven, Ct.
- Page-Storms Drop Forge Co., Chicopee, Mass.
- Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
- Bars, Bicycle Handle**—
Consolidated Mfg. Co., Toledo, O.
John B. Keim Mills, Inc., Buffalo, N. Y.
- Bars, Bricklayers' Pinch**—
Kraenter & Co., Inc., Newark, N. J.
- Bars, Carpenters'**—
Kraenter & Co., Inc., Newark, N. J.
- Bars, Car Pinch**—
(See Pushers, Car.)
- Bars, Chrome Steel**—
Thomas Prosser & Son, 26 Platt St., N.Y.
- Bars, Chrome Steel, for Jails, &c.**—
Chrome Steel Works, Chrome, N. J.
- Bars, Copper**—
(See Copper.)
- Bars, Crow and Claw**—
Hubbard & Co., Pittsburgh, Pa.
- Bars, New Castle Forge & Bolt Co., New Castle, Pa.**
Walter A. Zelnicker Supply Co., St. Louis, Mo.
- Bars, Eye**—
American Bridge Co. of New York, 42 Broadway, New York.
Carnegie Steel Co., Pittsburgh, Pa.
Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.
- Bars, Flagging**—
Hubbard & Co., Pittsburgh, Pa.
- Bars for Concrete Structures**—
Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
- C. Pardee Works, Perth Amboy, N. J.**
- Bars, Grate**—
(See Grate Bars.)
- Bars, Ice**—
Gifford-Wood Co., Arlington, Mass.
L. & I. J. White Co., Buffalo, N. Y.
- Bars, Iron**—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Bethlehem Steel Co., So. Bethlehem, Pa.
Burden Iron Co., Troy, N. Y.
J. K. Dimmick & Co., New Land Title Bldg., Philadelphia, Pa.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
Hirsch Rolling Mill Co., St. Louis, Mo.
Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.
Lockhart Iron & Steel Co., Pittsburgh, Pa.
Milton Mfg. Co., Milton, Pa.
Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
Shenango Iron & Steel Co., Pittsburgh, Pa.
Sligo Iron & Steel Co., Pittsburgh, Pa.
F. W. Wurster & Co., Brooklyn, N. Y.
- MERCHANTS.**
Bourne-Fuller Co., Cleveland, O.
Cabene & Co., Arcade Bldg., Philadelphia, Pa.
Denman & Davis, 85-91 Lafayette St., New York.
Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
 Arthur C. Harvey Co., Boston, Mass.
 J. H. Hillman & Son, Pittsburgh, Pa.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Hyde Bros. & Co., Pittsburgh, Pa.
 Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.
 E. B. Leaf & Co., Real Estate Trust Bldg., Philadelphia, Pa.
 Edmund W. Mudge & Co., Pittsburgh, Pa.
 F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
 Pierson & Co., 29 Broadway, New York.
 Pittsburgh Steel Construction Co., Pittsburgh, Pa.
 Horace T. Potts & Co., 316-320 N. 3d St., Philadelphia, Pa.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
 Charles G. Shepard, Buffalo, N. Y.

Bars, Iron, Galvanized—
 (See Galvanized Angles, Bars, &c.)
Bars, Lining and Tamping—
 Hubbard & Co., Pittsburgh, Pa.

Bars, Locomotive Cylinder Boring—
 (See Boring Bars, Locomotive Cylinder.)

Bars, Mine Spike—
 Hubbard & Co., Pittsburgh, Pa.

Bars, Muck—
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Milton Mfg. Co., Milton, Pa.
 Republic Iron & Steel Co., Pittsburgh, Pa.
 Shenango Iron & Steel Co., Pittsburgh, Pa.
 Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
 Youngtown Sheet & Tube Co., Youngtown, O.

MERCHANTS.

Cabeen & Co., Arcade Bldg., Philadelphia, Pa.
 Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
 General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Hyde Bros. & Co., Pittsburgh, Pa.
 Jerome Keeler & Co., 421 Chestnut St., Philadelphia, Pa.
 J. Tattall Lea & Co., 19 S. 12th St., Philadelphia, Pa.
 E. B. Leaf & Co., Real Estate Trust Bldg., Philadelphia, Pa.
 J. J. Mohr, 131 S. 4th St., Philadelphia, Pa.
 Edmund W. Mudge & Co., Pittsburgh, Pa.
 F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
 Frank Samuel, 15th & Market Sts., Philadelphia, Pa.
 Wheeler, Mifflin & Co., Fidelity Bldg., Philadelphia, Pa.
 E. H. Wilson & Co., 112 N. Broad St., Philadelphia, Pa.

Bars, Open Hearth Sheet—
 Allegheny Steel Co., Pittsburgh, Pa.
 Andrews Steel Co., Newport, Ky.

Bars, Open Hearth Tin—
 Allegheny Steel Co., Pittsburgh, Pa.
 Andrews Steel Co., Newport, Ky.

Bars, Pinch—
 (See Pushers, Car.)

Bars, Refined Iron—
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Shenango Iron & Steel Co., Pittsburgh, Pa.

Bars, Shackle—
 Hubbard & Co., Pittsburgh, Pa.

Bars, Sheet—
 Allegheny Steel Co., Pittsburgh, Pa.
 Andrews Steel Co., Newport, Ky.
 Carnegie Steel Co., Pittsburgh, Pa.
 La Belle Iron Works, Steubenville, O.
 Lackawanna Steel Co., 2 Rector St., N. Y.
 Republic Iron & Steel Co., Pittsburgh, Pa.
 Youngtown Sheet & Tube Co., Youngtown, O.

MERCHANTS.

Cabeen & Co., Arcade Bldg., Philadelphia, Pa.
 Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
 General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Hyde Bros. & Co., Pittsburgh, Pa.
 Edmund W. Mudge & Co., Pittsburgh, Pa.
 Joseph T. Ryerson & Son, Chicago, Ill.
Bars, Shutter—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 Stanley Works, New Britain, Ct.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Bars, Spring Steel—
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Harrow Spring Co., Kalamazoo, Mich.
 Thomas Prosser & Son, 26 Platt St., N. Y.

Bars, Stay Bolt, Hollow—
 Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Bars, Stay Bolt, Solid—
 Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Bars, Steel—
 Allegheny Steel Co., Pittsburgh, Pa.
 American Bridge Co. of New York, 42 Broadway, New York.

American Iron & Steel Mfg. Co., Lebanon, Pa.
 American Tube & Stamping Co., Bridgeport, Ct.

Bethlehem Steel Co., So. Bethlehem, Pa.
 Braeburn Steel Co., Braeburn, Pa.
 Carnegie Steel Co., Pittsburgh, Pa.
 Chrome Steel Works, Chrome, N. J.
 Henry Dieston & Sons, Philadelphia, Pa.
 Elyria Iron & Steel Co., Elyria, O.
 Forest City Steel & Iron Co., Cleveland, O.

Harrow Spring Co., Kalamazoo, Mich.
 Hirsch Rolling Mill Co., St. Louis, Mo.
 John Illingworth Steel Co., Frankford, Philadelphia, Pa.

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.
 Wm. Jessop & Sons, Ltd., 91 John St., New York.
 Jones & Laughlin Steel Co., Pittsburgh.
 Kidd Bros. & Burgher Steel Wire Co., Alliquippa, Pa.
 W. N. Kratzer & Co., Pittsburgh, Pa.
 La Belle Iron Works, Steubenville, O.
 Lackawanna Steel Co., 2 Rector St., New York.
 Lockhart Iron & Steel Co., Pittsburgh
 C. Pardee Works, Perth Amboy, N. J.
 Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
 Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.
 Thomas Prosser & Son, 26 Platt St., N.Y.
 Republic Iron & Steel Co., Pittsburgh, Pa.
 Scully Steel & Iron Co., Halsted & Wayman Sts., Chicago, Ill.
 Tennessee Coal, Iron & R. R. Co., 71 Broadway, New York.

MERCHANTS.

Belmont Iron Works, Inc., Philadelphia.
 Bourne-Fuller Co., Cleveland, O.
 Cabene & Co., Arcade Bldg., Philadelphia, Pa.
 Denman & Davis, 85-91 Lafayette St., New York.
 Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
 General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
 Arthur C. Harvey Co., Boston, Mass.
 J. H. Hillman & Son, Pittsburgh, Pa.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Ernest Law Co., 15th & Market Sts., Philadelphia, Pa.
 E. B. Leaf & Co., Real Estate Trust Bldg., Philadelphia, Pa.
 Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.
 North Works, Illinois Steel Co., Chicago, Ill.
 Ogden & Wallace, 577 Greenwich St., N.Y.
 Pierson & Co., 29 Broadway, New York.
 Pittsburgh Steel Construction Co., Pittsburgh, Pa.
 Horace T. Potts & Co., 316-320 N. 3d St., Philadelphia, Pa.
 Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.
 Scully Iron & Steel Co., 69 N. Halsted St., Chicago, Ill.
 Charles G. Shepard, Buffalo, N. Y.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Bars, Steel, Hollow—
 Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Bars, Telegraph Digging—
 Hubbard & Co., Pittsburgh, Pa.

Bars, Timber—
 Hubbard & Co., Pittsburgh, Pa.

Bars, Vanadium Steel—
 Harrow Spring Co., Kalamazoo, Mich.

Base Knobs—
 (See Knobs, Base.)

Bases, Displacement Stand—
 H. A. Matthews Mfg. Co., Seymour, Ct.

Bases, Post—
 (See Caps and Bases.)

Basin Pipes—
 (See Plumbing Supplies.)

Basket Handles, Wire—
 (See Handles, Basket, Wire.)

Basket Trucks—
 (See Trucks, Basket.)

Baskets, Bicycle—
 Andrews Wire & Iron Works, Rockford, Ill.

Baskets, Bolt—
 Buffalo Wire Works Co., Inc., Buffalo, N. Y.

Baskets, Bread or Cake, Silver and Silver Plated—
 International Silver Co., 9-13 Malden Lane, N. Y.

Baskets, Bushel—
 Andrews Wire & Iron Works, Rockford, Ill.

Baskets, Charging, Foundry—

Steel Basket Co., Cedar Rapids, Ia.

Baskets, Clam—
 (See Baskets, Oyster and Clam.)

Baskets, Clothes—
 Burlington Basket Co., Burlington, Ia.

Baskets, Coal and Coke—
 Steel Basket Co., Cedar Rapids, Ia.

Baskets, Corrugated—
 Steel Basket Co., Cedar Rapids, Ia.

Baskets, Counter Display—
 Burlington Basket Co., Burlington, Ia.
 Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.

Baskets, Dipping—
 E. B. Stimpson Co., 31 Spruce St., N. Y.

Baskets, Factory and Mill—
 Burlington Basket Co., Burlington, Ia.

Baskets, Fish—
 Buffalo Wire Works Co., Buffalo, N. Y.

Baskets, Fruit, Display—
 Steel Basket Co., Cedar Rapids, Ia.

Baskets, Fruit, Display—
 Andrews Wire & Iron Works, Rockford, Ill.

Baskets, Galvanized Steel—
 Steel Basket Co., Cedar Rapids, Ia.

Baskets, Hamper and Shipping—
 Burlington Basket Co., Burlington, Ia.

Baskets, Letter—
 Andrews Wire & Iron Works, Rockford, Ill.

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 Andrews Wire & Iron Works, Rockford, Ill.

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 Andrews Wire & Iron Works, Rockford, Ill.

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 Andrews Wire & Iron Works, Rockford, Ill.

Buffalo Wire Works Co., Buffalo, N. Y.
Dufur & Co., Baltimore, Md.
Estey Wire Works Co., 59 Fulton St., New York.
Gilbert & Bennett Mfg. Co., 27 Broadway, New York.
Kilbourne Mfg. Co., Troy, N. Y.
Parker Wire Goods Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
Wire Goods Co., Worcester, Mass.

Baskets, Steel—

W. J. Clark Co., Salem, O.
Baskets, Waste Paper—
Andrews Wire & Iron Works, Rockford, Ill.

Buffalo Wire Works Co., Buffalo, N. Y.
Burlington Basket Co., Burlington, Ia.
Dufur & Co., Baltimore, Md.
Estey Wire Works Co., 59 Fulton St., New York.

Kilbourne Mfg. Co., Troy, N. Y.
Parker Wire Goods Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
Steel Basket Co., Cedar Rapids, Ia.
Wire Goods Co., Worcester, Mass.

Baskets, Waste, Park and Street Corner—
Steel Basket Co., Cedar Rapids, Ia.

Baskets, Wire—
Andrews Wire & Iron Works, Rockford, Ill.

Buffalo Wire Works Co., Inc., Buffalo, N. Y.

Howard & Morse, 45 Fulton St., N. Y.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Evan L. Reed Mfg. Co., Sterling, Ill.

Bath Wastes—
(See Overflow and Wastes, Bath.)

Bathroom and Toilet Specialties—

American Ring Co., Waterbury, Ct.
Gem Mfg. Co., Boston, Mass.
International Silver Co., Meriden, Ct.
Kilbourne Mfg. Co., Troy, N. Y.
Charles Parker Co., Meriden, Ct.
Parker Wire Goods Co., Worcester, Mass.
Taplin Mfg. Co., New Britain, Ct.
Wire Goods Co., Worcester, Mass.

Bathtubs—
Humphreys Mfg. Co., Mansfield, O.
Stuart & Peterson Co., Burlington, N. Y.

Batteries, Blasting—
Ingersoll-Hand Co., 11 Broadway, N. Y.

Batteries, Electric—
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
W. R. Ostrander & Co., 22 Dey St., N. Y.

Battery, Charging—
(See Dynamos, Battery Charging.)

Battery Plates, Rolled Zinc—

Illinois Zinc Co., Peru, Ill.
Matthiessen & Hegeler Zinc Co., La Salle, Ill.
Sandoval Zinc Co., 123 N. Peoria St., Chicago, Ill.

Battery Zincs—
(See Zincs for Leclanche Batteries.)

Bay Windows—
(See Architectural Sheet Metal Work.)

Badger State Machine Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Stanley Rule & Level Co., New Britain, Ct.

Readers, Sheet Metal—
Badger State Machine Co., Janesville, Wis.

E. W. Bliss Co., Brooklyn, N. Y.
Ferracute Machine Co., Bridgeton, N. J.
Niagara Machine & Tool Co., Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Beads, Corner—
Youngstown Iron & Steel Roofing Co., Youngstown, O.

Beam Hooks, Shears—
(See Hooks, Shears.)

Beams and Channels—

American Bridge Co. of New York, 42 Broadway, New York.

Bethlehem Steel Co., So. Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.
Forest City Steel & Iron Co., Cleveland, O.

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Lackawanna Steel Co., 2 Rector St., New York.

Jones & Laughlin Steel Co., Pittsburgh.
Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

MERCHANTS.

Belmont Iron Works, Inc., Philadelphia.
Bourne-Fuller Co., Cleveland, O.
Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

Eagle Metal & Supply Co., Brooklyn, N. Y.

General Supply-Iron-Steel & Rail Co., Cincinnati, O.

Arthur O. Harvey Co., Boston, Mass.
C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Interstate Engineering Co., Bedford, O.
W. N. Kratzer & Co., Pittsburgh, Pa.

North Works, Illinois Steel Co., Chicago, Ill.

Northern Engineering Works, Detroit, Mich.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. B. Scafe & Sons Co., Pittsburgh.
Scully Steel & Iron Co., 69 No. Halsted St., Chicago, Ill.

Walsh's Sons & Co., Newark, N. J.

Beams and Channels, Galvanized—
(See Galvanized Angles, Bars, &c.)

Beams, Flow—
Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Beams, Scale—
(See Scale Beams.)

Bearing Metal—
Magnolia Metal Co., 113-115 Bank St., New York.

Merchant & Evans Co., Philadelphia, Pa.

Ohio Brass Co., Mansfield, O.
Phosphor-Bronze Smelting Co., Ltd., 2200
Washington Ave., Philadelphia, Pa.

Bearings, Ball

Bantam Anti-Friction Co., Bantam, Ct.
Chapman Ball Bearing Co., Boston, Mass.
Globe Machine & Stamping Co., Cleveland, O.

Otto Koenigslow Mfg. Co., Cleveland, O.
McCabe Hanger Mfg. Co., 425-427 W. 25th
St., New York.

Pressed Steel Mfg. Co., Ridge Ave. and
Willow St., Philadelphia, Pa.

Sparks-Withington Co., Ltd., Jackson,
Mich.

Standard Roller Bearing Co., 48th St. &
Girard Ave., Philadelphia, Pa.

Worcester Pressed Steel Co., Worcester,
Mass.

Bearings, Ball and Roller Thrust

Bantam Anti-Friction Co., Bantam, Ct.
Chapman Ball Bearing Co., Boston, Mass.
Poole Engineering & Machine Co., Balti-
more, Md.

Bearings, Bronze, Rolling Mill

United Engineering & Foundry Co., Pitts-
burgh, Pa.

Bearings, Car and Locomotive

Paul S. Reeves & Son, Philadelphia, Pa.
T. H. Symington Co., Baltimore, Md.

Bearings, Car Roller

Bancroft & Co., Philadelphia, Pa.

Bearings, Electric Motor

Ohio Brass Co., Mansfield, O.

Bearings, Lead Lined

Bridgeport Oxidized Bronze & Metal
Co., Bridgeport, Ct.

Bearings, Oilless Shaft

Boston & Lockport Block Co., Boston,
Chapman Ball Bearing Co., Boston, Mass.
North American Metaline Co., Long Is-
land City, N. Y.

Bearings, Ring Oiling

Bancroft & Co., Philadelphia, Pa.
H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

W. E. Caldwell Co., Inc., Louisville, Ky.
Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.

T. B. Wood's Sons Co., Chambersburg,
Pa.

Bearings, Roller

Atlas Car & Mfg. Co., Cleveland, O.
Bancroft & Co., Philadelphia, Pa.

Bantam Anti-Friction Co., Bantam, Ct.
Chapman Ball Bearing Co., Boston, Mass.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Sparks-Withington Co., Ltd., Jackson,
Mich.

Standard Roller Bearing Co., 48th St. &
Girard Ave., Philadelphia, Pa.

Ernst Wiener Co., Broad and Beaver
Sts., New York.

Bearings, Self-Oiling

Bancroft & Co., Philadelphia, Pa.
H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

W. E. Caldwell Co., Inc., Louisville, Ky.
Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.

Jones & Laughlin Steel Co., Pittsburgh.

Link-Belt Co., Inc., Philadelphia, Pa.
Poole Engineering & Machine Co., Balti-
more, Md.

T. B. Woods Sons Co., Chambersburg,
Pa.

Bearings, Side Car

American Steel Foundries, 42 Broadway,
N. Y.

T. H. Symington Co., Baltimore, Md.

Bearings, Thrust

(See Bearings, Ball and Roller Thrust.)

Bearings, Wood

Piqua Handle & Mfg. Co., Piqua, O.

Beaters, Clothes, Carpet, &c.

Andrews Wire & Iron Works, Rockford,
Ill.

Holt-Lyon Co., Inc., Tarrytown, N. Y.
Raymond Mfg. Co., Ltd., Corry, Pa.

Beaters, Egg

Andrews Wire & Iron Works, Rockford,
Ill.

Holt-Lyon Co., Inc., Tarrytown, N. Y.
Kilbourne Mfg. Co., Troy, N. Y.

Landers, Frary & Clark, New Britain, Ct.

Parker Wire Goods Co., Worcester, Mass.

Taplin Mfg. Co., New Britain, Ct.

Wire Goods Co., Worcester, Mass.

Bed Casters, Fasteners, Keys, Links, Screws

(See Casters, Fasteners, Keys; Links,
Screws.)

Beds, Cooling

Morgan Construction Co., Worcester, Mass.

Beds, Hot

Morgan Construction Co., Worcester, Mass.

Beds, Straightening

Morgan Construction Co., Worcester, Mass.

Bedsteads, Brass and Iron

Dufur & Co., Baltimore, Md.

Fanner Mfg. Co., Cleveland, O.

Beer Pump Supplies

(See Pump Supplies, Beer.)

Bees Wax, Pattern

J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.

Beet Shredding Knives

(See Knives, Beet.)

Belaying Pins

(See Pins, Belaying.)

Bell Cord Couplings

(See Couplings, Bell Cord.)

Bell Cranks, Levers, &c.

(See Levers, &c.)

Bell Hangers' Bits

(See Bits, Bell Hangers'.)

Bell Ringers

Chicago Pneumatic Tool Co., Fisher Bldg.,
Chicago, Ill.

Bellows, &c.

S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.
J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.
Geo. M. Scott, Johnson & 22d Sts., Chi-
cago, Ill.
J. D. Smith Foundry Supply Co., Cleve-
land, O.
Western Foundry Supply Co., Cliff &
John Sts., N. Y.

Bellows, Dentists' and Jew- elers'

Metal Specialties Mfg. Co., Chicago

Bells, Alarm—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Reading Hardware Co., Reading, Pa.

Bells, Altar and Lodge—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Hercules Brass & Bell Foundry, Cincinnati, O.

Bells, Automobile—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Frank Mossberg Co., Attleboro, Mass.

Bells, Bicycle—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Bridgeport Brass Co., 253 Broadway, N.Y.
John H. Graham & Co., 113 Chambers St., New York.

Frank Mossberg Co., Attleboro, Mass.

Bells, Call—

(See Bells, Tea and Call.)

Bells, Car—

Bevin Bros. Mfg. Co., East Hampton, Ct.
John H. Graham & Co., 113 Chambers St., New York.

Bells, Cow and Sheep—

Bevin Bros. Mfg. Co., East Hampton, Ct.

Bells, Dog—

Bevin Bros. Mfg. Co., East Hampton, Ct.

Bells, Door—

Arcade Mfg. Co., Freeport, Ill.
Bevin Bros. Mfg. Co., East Hampton, Ct.
John H. Graham & Co., 113 Chambers St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Bells, Dumb—

Piqua Handle & Mfg. Co., Piqua, O.
Reading Hardware Co., Reading, Pa.
John Sommer's Son, Newark, N. J.

Bells, Electric—

Bevin Bros. Mfg. Co., East Hampton, Ct.

W. R. Ostrander & Co., 22 Dey St., N. Y.

Bells, Engine—

Bevin Bros. Mfg. Co., East Hampton, Ct.

Paul S. Reeves & Son, Philadelphia, Pa.

Bells, Farm, Church and School, &c.—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.

Bells, Fire—

Bevin Bros. Mfg. Co., East Hampton, Ct.
John H. Graham & Co., 113 Chambers St., New York.

Bells, Fog—

Bevin Bros. Mfg. Co., East Hampton, Ct.

Bells, Gong—

Bevin Bros. Mfg. Co., East Hampton, Ct.
H. A. Matthews Mfg. Co., Seymour, Ct.
W. R. Ostrander & Co., 22 Dey St., N. Y.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Bells, Hand—

Bevin Bros. Mfg. Co., East Hampton, Ct.

Bells, House—

Bevin Bros. Mfg. Co., East Hampton, Ct.
W. R. Ostrander & Co., 22 Dey St., N. Y.

Bells, Horse and Engine Room (on Carriage)—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Reading Hardware Co., Reading, Pa.

Bells, Locomotive—

Bethlehem Steel Co., So. Bethlehem, Pa.
Bevin Bros. Mfg. Co., East Hampton, Ct.
Hercules Brass & Bell Foundry, Cincinnati, O.

Bells, Milkman's—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Hercules Brass & Bell Foundry, Cincinnati, O.

Bells, Ship and Signal—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Hercules Brass & Bell Foundry, Cincinnati, O.

Thomas Laughlin Co., Portland, Me.

Bells, Silver and Silver Plated—

International Silver Co., Meriden, Ct.

Bells, Sleigh and Team—

American Ring Co., Waterbury, Ct.
Bevin Bros. Mfg. Co., East Hampton, Ct.

Bells, Tea and Call—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

John H. Graham & Co., 113 Chambers St., New York.

Frank Mossberg Co., Attleboro, Mass.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Taplin Mfg. Co., New Britain, Ct.

Bells, Telephone and Clock—

American Tube & Stamping Co., Bridgeport, Ct.

Bevin Bros. Mfg. Co., East Hampton, Ct.
Bridgeport Brass Co., 253 Broadway, N.Y.

H. A. Matthews Mfg. Co., Seymour, Ct.

Frank Mossberg & Co., Attleboro, Mass.

Bells, Toy—

(See Toy Bells.)

Bells, Trip Gong—

Bevin Bros. Mfg. Co., East Hampton, Ct.
Hercules Brass & Bell Foundry, Cincinnati, O.

Bells, Turkey—

Bevin Bros. Mfg. Co., East Hampton, Ct.

Bells, Yacht—

(See Bells, Ship and Signal.)

Belt Awns, &c.—

(See Awns, &c.)

Belt Conveyor Trippers—

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Belt Dressing—

Crescent Belt Fastener Co., Inc., 143 E. 23d St., New York.

Jos. Dixon Crucible Co., Jersey City, N. J.

Grafton & Knight Mfg. Co., Worcester, Mass.

Main Belting Co., 1219 Carpenter St., Philadelphia, Pa.

N. Palmer & Co., Bridgeport, Ct.

Chas. A. Schieren & Co., 37 Ferry St., New York.

Belt Lacing, Leather and Rawhide—

Grafton & Knight Mfg. Co., Worcester, Mass.

New York Leather Belting Co., 51 Beekman St., New York.

W. Palmer & Co., Bridgeport, Ct.

Chas. A. Schieren & Co., 37 Ferry St., N.Y.

Belt Lacing Machines—

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Belt Lacing, Steel—

(See Hooks, Belt, Fasteners, Belt.)

Belt Plates—

(See Fasteners, Belt.)

Belt Punches—

(See Punches, Drive.)

Belt Shifters—

Builders Iron Foundry, Providence, B. I.
 Chandler & Farquhar Co., Boston, Mass.
 Geo. V. Cresson Co., 18th St., & Allegheny Ave., Philadelphia, Pa.
 Dodge Mfg. Co., Mishawaka, Ind.
 Mason Regulator Co., Boston, Mass.
 Pratt & Whitney Co., Hartford, Ct.
 T. B. Wood's Sons Co., Chambersburg, Pa.

Belt Tighteners—

American Tool & Machine Co., Boston.
 Billings & Spencer Co., Hartford, Ct.
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
 W. E. Caldwell Co., Inc., Louisville, Ky.
 Charter Gas Engine Co., Sterling, Ill.
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
 Dodge Mfg. Co., Mishawaka, Ind.
 Goodell-Pratt Co., Greenfield, Mass.
 Hoggson & Pettis Mfg. Co., New Haven, Ct.
 Jones & Laughlin Steel Co., Pittsburgh.
 Lane Mfg. Co., Montpelier, Vt.
 Poole Engineering & Machine Co., Baltimore, Md.
 Wickes Bros., Saginaw, Mich.
 T. B. Wood's Sons Co., Chambersburg, Pa.

Belting, Camel's Hair—

New York Leather Belting Co., 51 Beekman St., New York.

Belting, Canvas and Duck, Stitched—

Ames Sword Co., Chicopee, Mass.
 Case Mfg. Co., Columbus, O.
 Gandy Belting Co., Baltimore, Md.
 Main Belting Co., 1219-1235 Carpenter St., Philadelphia, Pa.
 New York Leather Belting Co., 51 Beekman St., New York.

Belting, Cement—
(See Cement, Belting.)**Belting, Chain—**

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
 W. J. Clark Co., Salem, O.
 Dodge Mfg. Co., Mishawaka, Ind.
 Jeffrey Mfg. Co., Columbus, O.
 Link-Belt Co., Philadelphia, Pa.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Webster Mfg. Co., 1075-1111 West Fifteenth St., Chicago, Ill.

MERCHANTS,

W. E. Caldwell Co., Inc., Louisville, Ky.
 General Supply-Iron-Steel & Rail Co., Cincinnati, O.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit, Mich.

Belting, Conveyor, Wire—

Clinton Wire Cloth Co., Clinton, Mass.
 Michigan Wire Cloth Co., Detroit, Mich.

Belting, Cotton—

Gandy Belting Co., Baltimore, Md.

Belting, Leather—

Grafton & Knight Mfg. Co., Worcester, Mass.
 New York Leather Belting Co., 51 Beekman St., New York.

N. Palmer & Co., Bridgeport, Ct.
 Chas. A. Schieren & Co., 37 Ferry St., N.Y.

Belting, Link—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 W. E. Caldwell Co., Louisville, Ky.
 W. J. Clark Co., Salem, O.
 Dodge Mfg. Co., Mishawaka, Ind.
 Jeffrey Mfg. Co., Columbus, O.
 Link-Belt Co., Philadelphia, Pa.
 Chas. A. Schieren & Co., 37 Ferry St., N.Y.
 Webster Mfg. Co., 1075-1111 West Fifteenth St., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago.

Belting, Rubber—

New York Belting & Packing Co., 91-93 Chambers St., New York.
 Robins Conveying Belt Co., 17-22 Park Row, New York.

Belting, Waterproof—

Chas. A. Schieren & Co., 37 Ferry St., N.Y.

Belts, Conveying—

Buffalo Wire Works Co., Inc., Buffalo, N. Y.

H. W. Caldwell & Son Co., Western Ave. & 17th St., Chicago, Ill.

Jeffrey Mfg. Co., Columbus, O.
 Link-Belt Co., Philadelphia, Pa.

Main Belting Co., 1219 Carpenter St., Philadelphia, Pa.

Michigan Wire Cloth Co., Detroit, Mich.
 Robins Conveying Belt Co., 17-22 Park Row, New York.

Webster Mfg. Co., 1075-1111 West Fifteenth St., Chicago, Ill.

Belts, Polishing—

(See Buffing and Polishing Machines.)

Belts, Steel Wire, Automobile—

New York Wire & Spring Co., Hoboken, N. J.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Bench Lathes, Strops, &c.—

(See Lathes, Strops, &c.)

Bench Leg Castings—

(See Castings, Bench Leg.)

Benches, Carpenters' Work—

American Tool Chest Co., 200 West Houston St., New York.
 Fox Machine Co., Grand Rapids, Mich.
 Oliver Machinery Co., Grand Rapids, Mich.

Benches, Circular Saw—

Badger State Machine Co., Janesville, Wis.

Hobbs Mfg. Co., Worcester, Mass.
 Oliver Machinery Co., Grand Rapids, Mich.

Benches, Draw—

(See Draw Benches.)

Benches, Factory and Shop Work—

Manufacturing Equipment & Engineering Co., Boston, Mass.

Benches, Folding—

Bethlehem Foundry & Machine Co., So Bethlehem, Pa.

Benches, Hydraulic Draw—

(See Draw Benches, Hydraulic.)

Benders, Bicycle Spoke—

(See Spoke Benders and Benders, Bicycle.)

Benders, Pipe, Wire—
Wm. D. Gibson Co., Huron and Kings-
bury Sts., Chicago, Ill.
Raymond Mfg. Co., Cory, Pa.

Benders, Rail—
Bethlehem Foundry & Machine Co., South
Bethlehem, Pa.
Espan-Lucas Machine Works, Broad and
Noble Sts., Philadelphia, Pa.
Hilles & Jones Co., Wilmington, Del.
Long & Allstatter Co., Hamilton, O.
Mackintosh, Hemphill & Co., Pittsburgh,
Pa.
Pittsburgh Gage & Supply Co., Pitts-
burgh, Pa.

Sheffield Car Co., Three Rivers, Mich.
Watson-Stillman Co., 26 Cortlandt St.,
New York.
Ernst Wiener Co., Broad and Beaver
Sts., New York.
Williams, White & Co., Inc., Moline, Ill.
Walter A. Zelnicker Supply Co., St.
Louis, Mo.

Benders, Tire—
Bethlehem Foundry & Machine Co., South
Bethlehem, Pa.
Boynton & Plummer, Worcester, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster,
Pa.
Wiley & Russell Mfg. Co., Greenfield,
Mass.

Williams, White & Co., Inc., Moline, Ill.
**Bending and Forming Iron
and Steel, to Order—**
W. J. Clark Co., Salem, O.

Bending Machines—
(See Forming and Bending Machines.)
**Bending Machines, Angle
and Eye—**

Cleveland Funch & Shear Works Co.,
Cleveland, O.
Williams, White & Co., Inc., Moline, Ill.

**Bending Machines, Hy-
draulic—**

Bertsch & Co., Cambridge City, Ind.
Mackintosh, Hemphill & Co., Pittsburgh,
Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Watson-Stillman Co., 26 Cortlandt St.,
New York.

Williams, White & Co., Moline, Ill.

**Bending Machines, Hy-
draulic Rail—**

Niles-Bement-Pond Co., 111 Broadway,
New York.

Watson-Stillman Co., 26 Cortlandt St.,
New York.

**Bending Machines, Portable
Pipe—**

H. B. Underwood & Co., 1025 Hamilton
St., Philadelphia, Pa.

Bending Machines, Tube—

Chicago Pneumatic Tool Co., Fisher
Bldg., Chicago, Ill.

Schuchardt & Schutte, 136 Liberty St.,
N. Y.

Watson-Stillman Co., 26 Cortlandt St.,
New York.

**Bends, Wrought Iron, for
Steam Plants—**

Harrisburg Pipe & Pipe Bending Co.,
Harrisburg, Pa.

National Pipe Bending Co., New Haven,
Ct.

Bent Riflers—
(See Riflers, Bent.)

Berry Bowls, Dishes—
(See Bowls, Dishes.)

Berry Washers—
(See Kitchen Articles, Wire.)

Berths and Bunks, Wire—

Buffalo Wire Works Co., Inc., Buffalo,
N. Y.

Bessemer Coppered Rods—
(See Rods, Bessemer, Coppered.)

Beveling Shears—
(See Shears, Beveling.)

Bevels—

Boston Gear Works, Norfolk Downs,
Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Henry Diston & Sons, Philadelphia, Pa.

Fawcuss Machine Co., Pittsburgh, Pa.

C. E. Jennings & Co., 42 Murray St.,
N. Y.

New Process Raw Hide Co., Syracuse,
N. Y.

Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.

Bevels, Ship Carpenters'—

Chapin-Stephens Co., Pine Meadow, Ct.

Bibbs, Steam—

J. Howard Lingle Co., Bellefonte, Pa.

Bibbs, Wash Bowl, &c.—

J. Howard Lingle Co., Bellefonte, Pa.

Bicycle Bells, Forgings—
(See Bells, Forgings, &c.)

Bicycle Chains—
(See Chains, Bicycle.)

Bicycle Lamps—
(See Lamps, Bicycle.)

Bicycle Machinery—

Adriance Machine Works, Brooklyn, N. Y.

Billings & Spencer Co., Hartford, Ct.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Ferracute Machine Co., Bridgeton, N. J.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring and Varick
Sts., New York.

Hoefler Mfg. Co., Freeport, Ill.

New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 111 Broadway, N. Y.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Stow Flexible Shaft Co., 25th & Callow-
hill Sts., Philadelphia, Pa.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

MERCHANTS.

W. P. Davis Mach. Co., Rochester, N. Y.

Hannan & Pinton, Springfield, Mass.

Marshall & Hinchart Machinery Co., 62-
64 So. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co.,
Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty
St., New York.

C. C. Wormer Machinery Co., Detroit,
Mich.

Bicycle Parts—

American Tube & Stamping Co., Bridge-
port, Ct.

Avery Stamping Co., Cleveland, O.

Billings & Spencer Co., Hartford, Ct.

Consolidated Mfg. Co., Toledo, O.

Crosby Co., Buffalo, N. Y.

Hartford Machine Screw Co., Hartford,
Ct.

Indianapolis Drop Forging Co., Indian-
apolis, Ind.

John R. Keim Mills, Inc., Buffalo, N. Y.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
John S. Leng's Son & Co., 33 Murray
St., New York.

H. A. Matthews Mfg. Co., Seymour, Ct.
National Cycle Mfg. Co., Bay City, Mich.
Parker Wire Goods Co., Worcester, Mass.
Pittsburgh Screw & Bolt Co., Pittsburgh.
Richmond Forgings Corporation, Rich-
mond, Va.

Standard Welding Co., Cleveland, O.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Strieby & Foote Co., Newark, N. J.
Wire Goods Co., Worcester, Mass.
(See also Bicycle Fittings.)

Bicycle Saddle Tops—
Graton & Knight Mfg. Co., Worcester,
Mass.

Bicycle Tires—
(See Tires, Bicycle.)

Bicycles and Sundries—
Consolidated Mfg. Co., Toledo, O.
John S. Leng's Son & Co., 33 Murray
New York.

National Cycle Mfg. Co., Bay City, Mich.
Simmons Hardware Co., St. Louis, Mo.

Bicycles, Motor—
Consolidated Mfg. Co., Toledo, O.

Billge Pumps—
(See Pumps, Ship and Deck.)

Bill Binders—
(See Binders, Bill, Letter, &c.)

Billets, Open Hearth Steel—
Allegheny Steel Co., Pittsburgh, Pa.
American Tube & Stamping Co., Bridge-
port, Ct.

Andrews Steel Co., Newport, Ky.
Bethlehem Steel Co., So. Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.
Thomas Prosser & Son, 26 Platt St., N. Y.
Tennessee Coal, Iron & R. R. Co., 71
Broadway, New York.

Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.

Billets, Steel—
Allegheny Steel Co., Pittsburgh, Pa.
American Tube & Stamping Co., Bridge-
port, Ct.

Andrews Steel Co., Newport, Ky.
Bethlehem Steel Co., So. Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.
Harrisburg Pipe & Pipe Bending Co.,
Harrisburg, Pa.

Inland Steel Co., First National Bank
Bldg., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburgh.
La Belle Iron Works, Steubenville, O.
Lackawanna Steel Co., 2 Rector St.,
New York.

Thomas Prosser & Son, 26 Platt St., N. Y.
Republic Iron & Steel Co., Pittsburgh, Pa.
Washburn Wire Co., Phillipsdale, B. I.
Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.
Youngstown Sheet & Tube Co., Youngs-
town, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Caben & Co., Arcade Bldg., Philadel-
phia, Pa.

Denman & Davis, 85-89 Lafayette St., N. Y.
Dilworth, Gilbert & Towne, Inc., 35-37
Wooster St., New York.

General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.

J. H. Hillman & Son, Pittsburgh, Pa.

C. B. Houston & Co., Girard Bldg.,
Philadelphia, Pa.

Jerome Keeley & Co., 421 Chestnut St.,
Philadelphia, Pa.

J. Tatnall Lea & Co., 19 So. 12th St.,
Philadelphia, Pa.

A. Milne & Co., 1 Broadway, New York.

Edmund W. Mudge & Co., Pittsburgh,
Pa.

F. R. Phillips & Sons Co., Pennsylvania
Bldg., Philadelphia, Pa.

Pilling & Crane, Girard Bldg., Philadel-
phia, Pa.

Plitt & Co., Real Estate Trust Bldg.,
Philadelphia, Pa.

Potts & Wittman, North American Bldg.,
Philadelphia, Pa.

Frank Samuel, 15th & Market Sts., Phil-
adelphia, Pa.

E. H. Wilson & Co., 112 No. Broad St.,
Philadelphia, Pa.

Billiard Table Bolts and
Cushions—
(See Bolts, Billiard Table.)

Binder Twine—
(See Twine, Binder.)

Binders, Log—
E. C. Atkins & Co., Indianapolis, Ind.

Binding Chain—
(See Chain.)

Binding, Oil Cloth—
Armstrong-Blum Mfg. Co., 109 N. Fran-
cisco Ave., Chicago, Ill.

Turner & Stanton Co., Norwich, Ct.

Binding, Trunk—
J. H. Sessions & Son, Bristol, Ct.

Binnacles—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Riggs & Bro., 310 Market St., Philadel-
phia, Pa.

Bins, Coal—
R. Munroe & Sons Corporation, Pitts-
burgh, Pa.

Bins, Nail—
W. J. Clark Co., Salem, O.

Bins, Stock—
W. J. Clark Co., Salem, O.

Bins, Storage, Steel—
Terrell's Equipment Co., Grand Rapids,
Mich.

Bins, Wire—
Buffalo Wire Works Co., Inc., Buffalo,
N. Y.

Bird Cage Hooks, Springs—
(See Hooks, Springs.)

Bird Cages—
(See Cages, Bird and Animal.)

Bit and Square Levels—
(See Levels, Bit and Square.)

Bit Braces, Gauges, &c.—
(See Braces, Gauges, &c.)

Bit Stocks, Angle Boring—
John S. Fray & Co., Bridgeport, Ct.

Millers Falls Co., 28 Warren St., N. Y.

**Bits, Bell Hangers', Elec-
tricians'—**

Cleveland Twist Drill Co., Cleveland, O.

H. H. Mayhew Co., Shelburne Falls, Mass.

Russell & Erwin Mfg. Co., 94-98 Lafayette
St., N. Y.

Snell Mfg. Co., Fiskdale, Mass.

Standard Tool Co., Cleveland, O.

James Swan Co., Seymour, Ct.

Whitman & Barnes Mfg. Co., Chicago.

Bits, Brace, Boring Machine, &c.—
(See Augers and Bits.)

Bits, Bridge—
Fernald Mfg. Co., North East, Pa.
Kilborn & Bishop Co., New Haven, Ct.
North & Judd Mfg. Co., New Britain, Ct.

Bits, Broom Handle—
H. H. Mayhew Co., Shelburne Falls, Mass.

Bits, Countersink—
Cleveland Twist Drill Co., Cleveland, O.
Kilborn & Bishop Co., New Haven, Ct.
H. H. Mayhew Co., Shelburne Falls, Mass.
Job T. Pugh, 31st and Ludlow Sts., Philadelphia, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., N. Y.

Snell Mfg. Co., Fiskdale, Mass.

Standard Tool Co., Cleveland, O.

Whitman & Barnes Mfg. Co., Chicago.

Bits, Dowel—
Cleveland Twist Drill Co., Cleveland, O.

Ford Auger Bit Co., Holyoke, Mass.

Russell Jennings Mfg. Co., Chester, Ct.

James Swan Co., Seymour, Ct.

Bits, Expansive—
Connecticut Valley Mfg. Co., Center Brook, Ct.

John H. Graham & Co., 113 Chambers St., New York.

C. E. Jennings & Co., 42 Murray St., N. Y.

Kilborn & Bishop Co., New Haven, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., N. Y.

James Swan Co., Seymour, Ct.

Tower & Lyon Co., 95 Chambers St., New York.

Bits, Gimlet—
(See Gimlets and Gimlet Bits.)

Bits, Hollow Chisel—
Irwin Auger Bit Co., Wilmington, O.

Job T. Pugh, 31st and Ludlow Sts., Philadelphia, Pa.

Bits, Hub Boring—
Irwin Auger Bit Co., Wilmington, O.

Standard Tool Co., Cleveland, O.

Bits, Machine, Wood—
Ford Auger Bit Co., Holyoke, Mass.

Lincoln Williams Twist Drill Co., Taunton, Mass.

Oliver Machinery Co., Grand Rapids, Mich.

Job T. Pugh, 31st and Ludlow Sts., Philadelphia, Pa.

Standard Tool Co., Cleveland, O.

James Swan Co., Seymour, Ct.

Whitaker Mfg. Co., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago.

Bits, Mortising—
Grand Rapids Hardware Co., Grand Rapids, Mich.

Bits, Pod—
H. H. Mayhew Co., Shelburne Falls, Mass.

Snell Mfg. Co., Fiskdale, Mass.

Bits, Screw Driver—
Connecticut Valley Mfg. Co., Center Brook, Ct.

Ducharmes & Co., Shelburne Falls, Mass.

Ford Auger Bit Co., Holyoke, Mass.

John H. Graham & Co., 113 Chambers St., New York.

Krauter & Co., Inc., Newark, N. J.

H. H. Mayhew Co., Shelburne Falls, Mass.

Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., N. Y.

Smith & Hemenway Co., 108-110 Duane St., New York.

Snell Mfg. Co., Fiskdale, Mass.

Standard Tool Co., Cleveland, O.

Stanley Rule & Level Co., New Britain, Ct.

James Swan Co., Seymour, Ct.

Tuck Mfg. Co., Brockton, Mass.

Whitman & Barnes Mfg. Co., Chicago.

Bits, Square Boring—
(See Bits, Hollow Chisel.)

Bits, Sucker Rod—
H. H. Mayhew Co., Shelburne Falls, Mass.

Bits, Tree Tapping—
Ford Auger Bit Co., Holyoke, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.

James Swan Co., Seymour, Ct.

Black Plate for Tinning—
(See Plate, Black for Tinning.)

Blacksmiths' Bellows, Buffers, &c.—
(See Bellows, Buffers, &c.)

Blacksmiths' Pincers—
(See Pincers.)

Blacksmiths' Tools—
Acme Machinery Co., Cleveland, O.

American Die & Tool Co., Reading, Pa.

Badger State Machine Co., Janesville, Wis.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Buffalo Forge Co., Buffalo, N. Y.

Heller Bros. Co., Newark, N. J.

Hilles & Jones Co., Wilmington, Del.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Blades and Handles, Extension Knife—
Dame, Stoddard & Co., Boston, Mass.

Blades, Butcher Saw—
E. C. Atkins & Co., Indianapolis, Ind.

John Chatillon & Sons, 85 Cliff St., N. Y.

Henry Disston & Sons, Philadelphia, Pa.

Goodell-Pratt Co., Greenfield, Mass.

Massachusetts Saw Works, Chicopee, Mass.

National Saw Co., Newark, N. J.

Rex File & Saw Co., Newcomerstown, O.

Simonds Mfg. Co., Fitchburg, Mass.

H. G. Thompson & Son Co., New Haven, Ct.

Blades, Doctor—
Henry Disston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Blades, Fan Blower, Steel—
Avery Stamping Co., Cleveland, O.

Blades, Gin Roller—
Henry Disston & Sons, Philadelphia, Pa.

Blades, Hack Saw—
Boston Saw & Tool Co., Boston, Mass.

Rex File & Saw Co., Newcomerstown, O.

(See also Saws, Hack.)

Blades, Metal Shear—
American Die & Tool Co., Reading, Pa.

Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.

E. C. Atkins & Co., Indianapolis, Ind.
Badger State Machine Co., Janesville, Wis.

E. W. Bliss Co., Brooklyn, N. Y.
Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Henry Disston & Sons, Philadelphia, Pa.
Ferracute Machine Co., Bridgeton, N. J.

Heppentall Forge & Knife Co., Pittsburgh, Pa.

Hiles & Jones Co., Wilmington, Del.
Niagara Machine & Tool Works, Buffalo, N. Y.

Simonds Mfg. Co., Fitchburg, Mass.
L. & I. J. White Co., Buffalo, N. Y.

Blades, Saw, Stone and Marble—

E. C. Atkins & Co., Indianapolis, Ind.
Carnegie Steel Co., Pittsburgh, Pa.

Blades, Screw Slotter—
Simonds Mfg. Co., Fitchburg, Mass.

Blanket Hardware—
North & Judd Mfg. Co., New Britain, Ct.

Blanking and Forming, Sheet Metal—

(See Stamping, Sheet Metal.)
Blanks, Cup, Aluminum, Brass, Bronze, Copper, German Silver—

Scovill Mfg. Co., Waterbury, Ct.

Blanks, Cutter—
(See Cutter Blanks, Milling.)

Blanks, Gear—

Erie Forge Co., Erie, Pa.
Fawcett Machine Co., Pittsburgh, Pa.

Kilborn & Bishop Co., New Haven, Ct.
Philadelphia Roll & Machine Co., 23d St.

and Washington Ave., Philadelphia,
Phosphor-Bronze Smelting Co., Ltd., 2200

Washington Ave., Philadelphia, Pa.
Tindell-Morris Co., Eddystone, Pa.

W. & S. Mfg. Co., Worcester, Mass.

Blanks, Gear, Steel—
Fawcett Machine Co., Pittsburgh, Pa.

Lebanon Steel Casting Co., Lebanon, Pa.
Thomas Prosser & Son, 36 Platt St., N. Y.

Blanks, Pinion—
Erie Forge Co., Erie, Pa.

Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia,

Blanks, Saw Blade—
Henry Disston & Sons, Philadelphia, Pa.

Blanks, Snap Gauge—
Billings & Spencer Co., Hartford, Ct.

J. H. Williams & Co., Brooklyn, N. Y.

Blanks, Sprocket—
Otto Konigsloew Mfg. Co., Cleveland, O.

W. & S. Mfg. Co., Worcester, Mass.

Blanks, Thumb Nut—
Billings & Spencer Co., Hartford, Ct.

Keystone Drop Forge Works, Chester, Pa.
Whitman & Barnes Mfg. Co., Chicago.

J. H. Williams & Co., Brooklyn, N. Y.

Blanks, Thumb Screw—
Billings & Spencer Co., Hartford, Ct.

Keystone Drop Forge Works, Chester, Pa.
Whitman & Barnes Mfg. Co., Chicago.

J. H. Williams & Co., Brooklyn, N. Y.

Blast Furnace Casting Machine—

(See Casting Machines, Blast Furnace.)

Blast Furnace Machinery—
Atlas Car & Mfg. Co., Cleveland, O.

Mackintosh, Hemphill & Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.
Pennsylvania Engineering Works, New

Castle, Pa.
United Engineering & Foundry Co.,

Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Blast Gates—
(See Gates, Blast.)

Blind Adjusters, Fasteners, Hinges—
(See Adjusters, Fasteners, Hinges.)

Blind Awning Fixtures—
(See Awning Fixtures, Blind.)

Blind Hardware—
(See Hinges, Fasteners, Blind.)

Blind Workers—
(See Workers, Shutter.)

Block Scrapers, Butchers—
(See Scrapers, Butchers' Block.)

Blocking, Adjustable—
Wm. G. Le Count, East Norwalk, Ct.

Powell Tool Co., Worcester, Mass.

Blocks, Blast Furnace—
Cyrus Borgner Co., 23d St., above Race,

Philadelphia, Pa.
M. D. Valentine & Bro. Co., Woodbridge,

N. J.

Blocks, Chain—
(See Blocks, Hoisting.)

Blocks, Chain, Electric—
Northern Engineering Works, Detroit,

Mich.

Blocks, Cresting—
(See Finials and Vases, Metal.)

Blocks, Deck and Snatch—
American Well Works, Aurora, Ill.

Boston & Lockport Block Co., Boston,
Broderick & Bascom Rope Co., St. Louis,

Mo.

Thomas Laughlin Co., Portland, Me.

A. Leschen & Sons Rope Co., St. Louis.

W. & J. Tiebout, 118 Chambers St., N. Y.

Union Hardware Co., Torrington, Ct.

Wilcox, Crittenden & Co., Inc., Middle-

town, Ct.

Blocks, Differential Pulley—
Boston & Lockport Block Co., Boston,

Broderick & Bascom Rope Co., St. Louis,
Chisholm & Moore Mfg. Co., Cleve-

land, O.

Alfred Field & Co., 33 Chambers St., N. Y.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Reading Crane & Hoist Works, Reading,

Pa.

Scully Steel & Iron Co., 69 N. Halsted

St., Chicago, Ill.

Yale & Towne Mfg. Co., 9 Murray St.,

New York.

Blocks, Drill—
Athol Machine Co., Athol, Mass.

Blocks, Floor Broom—
Piqua Handle & Mfg. Co., Piqua, O.

Blocks, Granite Cutters—
Winding

Trow & Holden, Barre, Vt.

Blocks, Hoisting—
American Well Works, Aurora, Ill.

Boston & Lockport Block Co., Boston.
Broderick & Bascom Rope Co., St. Louis, Mo.
C. Y. Hunt Co., West New Brighton, N. Y.
Thomas Laughlin Co., Portland, Me.
A. Leschen & Sons Rope Co., St. Louis.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Schuchardt & Schutte, 136 Liberty St., New York.

Union Hardware Co., Torrington, Ct.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Blocks, Locomotive—
Broderick & Bascom Rope Co., St. Louis, Mo.

Ostrander Fire Brick Co., Troy, N. Y.

Blocks, Log Loading—
Broderick & Bascom Rope Co., St. Louis.
A. Leschen & Sons Rope Co., St. Louis.

Blocks, Pillow—

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell & Co., Inc., Louisville, Ky.

Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Jones & Laughlin Steel Co., Pittsburgh.

Link-Belt Co., Philadelphia, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

Robins Conveying Belt Co., 17-22 Park Row, New York.

T. B. Wood's Sons Co., Chambersburg, Pa.

Blocks, Steel—

Boston & Lockport Block Co., Boston.

Broderick & Bascom Rope Co., St. Louis.

Thomas Laughlin Co., Portland, Me.

A. Leschen & Sons Rope Co., St. Louis.

Union Hardware Co., Torrington, Ct.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Blocks, Swage—

B. B. Noyes & Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Blocks, Tackle—

American Well Works, Aurora, Ill.

Boston & Lockport Block Co., Boston.

Broderick & Bascom Rope Co., St. Louis.

Lane Bros. Co., Poughkeepsie, N. Y.

Thomas Laughlin Co., Portland, Me.

A. Leschen & Sons Rope Co., St. Louis.

W. & J. Tiebout, 118 Chambers St., N. Y.

Union Hardware Co., Torrington, Ct.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Blocks, Wire Rope—

American Well Works, Aurora, Ill.

Boston & Lockport Block Co., Boston.

Broderick & Bascom Rope Co., St. Louis.

Thomas Laughlin Co., Portland, Me.

A. Leschen & Sons Rope Co., St. Louis.

Mo.

Union Hardware Co., Torrington, Ct.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Blooming Mills—

Lewis Foundry & Machine Co., Groveton, Pa.

Macintosh, Hemphill & Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.

Morgan Construction Co., Worcester, Mass.

Morgan Engineering Co., Alliance, O.

Pennsylvania Engineering Works, New Castle, Pa.

Philadelphia Roll & Machine Co., 231 St. & Washington Ave., Philadelphia.

United Engineering & Foundry Co., Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Blooms, Charcoal—

Carnegie Steel Co., Pittsburgh, Pa.

Lackawanna Steel Co., 2 Rector St., New York.

MERCHANTS.

General Supply-Iron-Steel & Rail Co., Cincinnati, O.

J. H. Hultman & Son, Pittsburgh, Pa.

Wheeler, Miffin & Co., Fidelity Bldg., Philadelphia, Pa.

Blow Off Tanks—

A. D. Granger Co., West St. Bldg., N. Y.

E. Keeler Co., Williamsport, Pa.

Charles G. Shepard, Buffalo, N. Y.

Blow Pipes, Alcohol and Gasoline—

Metal Specialties Mfg. Co., Chicago, Ill.

Blow Pipes, Dental—

Metal Specialties Mfg. Co., Chicago, Ill.

Blow Pipes, Jewelers'—

Metal Specialties Mfg. Co., Chicago, Ill.

Blower Stands—

(See Stands, Blower.)

Blowers—

American Blower Co., Detroit, Mich.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Champion Blower & Forge Co., Lancaster, Pa.

Connorsville Blower Co., Connorsville, Ind.

De Laval Steam Turbine Co., Trenton, N. J.

Exeter Machine Works, Exeter, N. H.

Green Fuel Economizer Co., Matteswan, N. Y.

McClave-Brooks Co., Scranton, Pa.

Massachusetts Fan Co., Watertown, Mass.

Monarch Engineering & Mfg. Co., Baltimore, Md.

Niles-Bement-Pond Co., 111 Broadway, New York.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

B. F. Sturtevant Co., Boston, Mass.

MERCHANTS.

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

J. Gilmour, Bennett Bldg., New York.

Hannan & Finton, Springfield, Mass.

John Henning & Son, 1016 E. Susquehanna Ave., Philadelphia, Pa.

Machinists' Supply Co., 16-18 So. Canal St., Chicago, Ill.

Edgar M. Moore & Co., Pittsburgh, Pa.

S. Obermayer Co., Cincinnati, O.

Perkins & Frecker, 136 Liberty St., N. Y.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 68 No. Halsted St., Chicago, Ill.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
Jacob Ullman, Buffalo, N. Y.
Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Blowers, Blacksmith's Electric

Buffalo Forge Co., Buffalo, N. Y.
Blowers, Electric
American Blower Co., Detroit, Mich.
Bayley Mfg. Co., Milwaukee, Wis.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.

Jas. Clark, Jr., Electric Co., Louisville, Ky.
General Electric Co., Schenectady, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
Northern Electrical Mfg. Co., Madison, Wis.

B. F. Sturtevant Co., Boston, Mass.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Blowers, Pressure

American Blower Co., Detroit, Mich.
American Gas Furnace Co., 23 John St., New York.

Bayley Mfg. Co., Milwaukee, Wis.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.
Connorsville Blower Co., Connorsville, Ind.
De Laval Steam Turbine Co., Trenton, N. J.

Exeter Machine Works, Exeter, N. H.
Green Fuel Economizer Co., Matteawan, N. Y.

S. Obermayer Co., Cincinnati, O.
J. D. Smith Foundry Supply Co., Cleveland, O.

B. F. Sturtevant Co., Boston, Mass.

Blowers, Steam Jet

Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.
McClave-Brooks Co., Scranton, Pa.
Keuffel & Esser Co., 127 Fulton St., N. Y.
Youngtown Car Mfg. Co., Youngstown, O.
(See also Printing Machines.)

Board Bill Clips

(See Clips, Bill, Letter, &c., Board.)

Board Rules

(See Rules, Board.)

Boards, Corn

(See Architectural Sheet Metal Work.)

Boards, Drain, Sink

Humphreys Mfg. Co., Mansfield, O.
Boards, Drawing
Keuffel & Esser Co., 127 Fulton St., N. Y.

Boards, Glass

Lufkin Rule Co., Saginaw, Mich.
Boat Anchors, Hooks, &c.
(See Anchors, Hooks, &c.)

Boat Houses, Portable

(See Houses, Portable.)

Bobs, Plumb

Brown & Sharpe Mfg. Co., Providence, R. I.

Henry Disston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Stanley Rule & Level Co., New Britain, Ct.
L. S. Starrett Co., Athol, Mass.

Tower & Lyon Co., 95 Chambers St., New York.

Bogie Rollers

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Boiler Brace Iron

(See Iron, Boiler Brace.)

Boiler Braces, Pressed

Lukens Iron & Steel Co., Coatesville, Pa.

Boiler Cleaners

(See Cleaners, Flue.)

Boiler Compounds

(See Compounds, Boiler.)

Boiler Coverings

(See Coverings, Boiler and Pipe.)

Boiler Drill Furnaces, &c.

(See Drills, Furnaces, &c.)

Boiler Feeders, Low Pressure

F. E. Myers & Bros., Ashland, O.
Walworth Mfg. Co., Boston, Mass.

Boiler Fronts

Abendroth & Root Mfg. Co., Newburgh, N. Y.
A. D. Granger Co., West St. Bldg., N. Y.

E. Keeler Co., Williamsport, Pa.
R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
Walworth Mfg. Co., Boston, Mass.

Boiler Handles

(See Tinnners' Trimmings.)

Boiler Heads

(See Heads, Flanged and Dishd Boiler.)

Boiler Makers' Tools

American Die & Tool Co., Reading, Pa.
Badger State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Cincinnati Punch & Shear Co., Cincinnati, O.
Richard Dudgeon, 24-26 Columbia St., New York.

Gem Mfg. Co., Pittsburgh, Pa.
A. L. Henderer's Sons, Wilmington, Del.
Hilles & Jones Co., Wilmington, Del.

J. J. McCabe, 14 Dey St., New York.
New Doty Mfg. Co., Janesville, Wis.
Niles-Bement-Pond Co., 111 Broadway, New York.

Thomas Prosser & Son, 26 Platt St., N. Y.
Pratt & Whitney Co., Hartford, Ct.
Stow Flexible Shaft Co., 28th & Callowhill Sts., Philadelphia, Pa.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.
Marshall & Huchart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.
Prentiss Tool & Supply Co., 115 Liberty St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Wickes Bros., Saginaw, Mich.
C. O. Wormer Machinery Co., Detroit, Mich.

Boiler Makers' Tools, Kitchen—

E. W. Bliss Co., Brooklyn, N. Y.

Boilers, Automobile—

Janney, Steinmetz & Co., Philadelphia.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Boilers, House, Copper—

E. B. Badger & Sons Co., Boston, Mass.

Boilers, House, Galvanized—

Wm. B. Scaife & Sons Co., Pittsburgh.

Boilers, Portable—

Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.

E. Keeler Co., Williamsport, Pa.

Boilers, Seamless Drawn Steel House—

Pressed Steel Tank Co., Milwaukee, Wis.

Boilers, Steam—

Abendroth & Root Mfg. Co., Newburgh, N. Y.

Babcock & Wilcox Co., 85 Liberty St., New York.

Thos. Carlin's Sons, Allegheny, Pa.

Exeter Machine Works, Exeter, N. H.

Franklin Boiler Works Co., Troy, N. Y.

A. D. Granger Co., West St. Bldg., N. Y.

Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.

Hyde Bros. & Co., Pittsburgh, Pa.

E. Keeler Co., Williamsport, Pa.

Lidgerwood Mfg. Co., 96 Liberty St., New York.

Meehan Boiler & Construction Co., Louisville, O.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

R. S. Newbold & Son Co., Norristown, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Newport News Ship Building & Dry Dock Co., Newport News, Va.

Parker Boiler Co., Pennsylvania Bldg., Philadelphia, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Rust Boiler Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Vilter Mfg. Co., Milwaukee, Wis.

Robert Wetherill & Co., Chester, Pa.

Wickes Bros., Saginaw, Mich.

MERCHANTS

Charles Behlen, 72 Trinity Pl., New York.

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

Central Station Improvement Co., Monadnock Block, Chicago, Ill.

Cleveland Belting & Machinery Co., Cleveland, O.

Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.

Wm. P. Davis Machine Co., Rochester, N. Y.

Charles E. Dustin Co., 11 Broadway, N. Y.

Barclay M. Everson, Pittsburgh, Pa.

General Supply-Iron-Steel & Rail Co., Cincinnati, O.

Hannan & Flinton, Springfield, Mass.

John Henning & Son, 1016 E. Susquehanna Ave., Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

Edgar M. Moore & Co., Pittsburgh, Pa.

Peterson Construction Co., Pittsburgh, Pa.

Pfannmueller Engineering Co., First National Bank Bldg., Chicago, Ill.

Power Equipment Co., Fisher Bldg., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

L. F. Seyfert's Sons, Inc., 437-441 No. 3d St., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

Shook & Fletcher, Birmingham, Ala.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Jacob Ullman, Buffalo, N. Y.

Warren City Tank & Boiler Works, Warren, O.

C. C. Wormer Machine Co., Detroit, Mich.

Yearsley & Levene, 305 N. 3d St., Philadelphia, Pa.

Boilers, Steam and Hot Water—

Exeter Machine Works, Exeter, N. H.

A. D. Granger Co., West St. Bldg., N. Y.

Hershey Machine & Foundry Co., Manheim, Pa.

E. Keeler Co., Williamsport, Pa.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

Boilers, Tubular Heating—

A. D. Granger Co., West St. Bldg., N. Y.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Boilers, Vegetable—

(See Kitchen Articles, Wire—)

Boilers, Wash—

E. B. Badger & Sons Co., Boston, Mass.

Boiler Plates—

(See Plates, Bolster.)

Bolsters, Cast Steel Car Truck—

American Steel Foundries, 42 Broadway, New York.

Bolt and Nut Machinery—

Acme Machinery Co., Cleveland, O.

Ajax Mfg. Co., Cleveland, O.

Badger State Machine Co., Janesville, Wis.

Blake & Johnson Co., Waterbury, Ct.

Boynton & Plummer, Worcester, Mass.

Detrick & Harvey Machine Co., Baltimore, Md.

Hartford Machine Screw Co., Hartford, Ct.

Landis Machine Co., Waynesboro, Pa.

National Machinery Co., Titin, O.

Niles-Bement-Pond Co., 111 Broadway, N. Y.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Webster & Perks Tool Co., Springfield, O.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

MERCHANTS

Baird Machinery Co., Pittsburgh, Pa.

1111, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, Inc., 85-83 Liberty St., New York.
 Marshall & Hushart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
 McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 Scully Steel & Iron Co., 69 No. Halsted St., Chicago, Ill.
 Vandyke, Churchill Co., 8 Dey St., N. Y.
 A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 C. C. Wormer Machinery Co., Detroit, Mich.

Bolt Copper, Cutters, &c.— (See Copper, Cutters, &c.)

Bolt Ends—
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
 Boston Bolt Co., Boston, Mass.
 Clark Bros. Bolt Co., Milldale, Ct.
 Grabler Mfg. Co., Cleveland, O.
 Samuel Hall's Sons, 229-233 W. 10th St., New York, N. Y.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 M. Lanz & Sons, Pittsburgh, Pa.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
 Republic Iron & Steel Co., Pittsburgh, Pa.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 St. Louis Screw Co., St. Louis, Mo.
 Upson Nut Co., Cleveland, O.

Bolt Head Milling Machines—

(See Nut and Bolt Head Milling Machines.)

Bolt Head Trimmers— (See Trimmers, Bolt Head.)

Bolt Iron—

American Iron & Steel Mfg. Co., Lebanon, Pa.
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Hirsch Rolling Mill Co., St. Louis, Mo.
 Republic Iron & Steel Co., Pittsburgh, Pa.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Bolt Keys— (See Keys, Nail, Bolt, Nut, &c.)

Bolt Machinery, Stay—

E. Harrington, Son & Co., 1508 Pennsylvania Ave., Philadelphia, Pa.

Bolt Machinery, Stove and Carriage—

Acme Machinery Co., Cleveland, O.
 Blake & Johnson Co., Waterbury, Ct.
 Landis Machine Co., Waynesboro, Pa.
 E. J. Manville Machine Co., Waterbury, Ct.
 National Machinery Co., Tiffin, O.
 Waterbury Fernald Foundry & Machine Co., Waterbury, Ct.

Bolt Pointing Machines—

Acme Machinery Co., Cleveland, O.
 Detrick & Harvey Machine Co., Baltimore.
 National Machinery Co., Tiffin, O.
 Niles-Bemco Pond Co., 111 Broadway, New York.

Bolt Shields, Expansion— (See Shields, Expansion Bolt.)

Bolt Turning Machines, Taper—

E. Harrington, Son & Co., 1508 Pennsylvania Ave., Philadelphia, Pa.

Bolt Wire—

(See Wire, Bolt.)

Bolts, Agricultural—

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
 Clark Bros. Bolt Co., Milldale, Ct.
 Detroit Screw Works, Detroit, Mich.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 M. Lanz & Sons, Pittsburgh, Pa.
 New Castle Forge & Bolt Co., New Castle, Pa.
 Republic Iron & Steel Co., Pittsburgh, Pa.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Upson Nut Co., Cleveland, O.

Bolts, Anchor or Toggle—

American Iron & Steel Mfg. Co., Lebanon, Pa.
 Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Isaac Church, South Norwalk, Ct.
 Diamond Expansion Bolt Co., 9-15 Murray St., New York.
 Fort Pitt Forge Co., Pittsburgh, Pa.
 Grabler Mfg. Co., Cleveland, O.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 M. Lanz & Sons, Pittsburgh, Pa.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
 J. D. Smith Foundry Supply Co., Cleveland, O.
 Star Expansion Bolt Co., 147-149 Cedar St., New York.
 Steward & Romaine Mfg. Co., Philadelphia, Pa.

Bolts, Barn Door—

ArCADE Mfg. Co., Freeport, Ill.
 M. Lanz & Sons, Pittsburgh, Pa.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Bolts, Barrel and Wrought Square—

(See Bolts, Door.)

Bolts, Billiard Table—

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
 Boston Bolt Co., Boston, Mass.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 Shelton Co., Shelton, Ct.

Bolts, Blank—

American Iron & Steel Mfg. Co., Lebanon, Pa.
 Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
 Boston Bolt Co., Boston, Mass.
 Clark Bros. Bolt Co., Milldale, Ct.
 Detroit Screw Works, Detroit, Mich.
 Garland Nut & Rivet Co., Pittsburgh, Pa.
 Grabler Mfg. Co., Cleveland, O.
 Samuel Hall's Sons, 229-233 W. 10th St., New York.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 M. Lanz & Sons, Pittsburgh, Pa.
 National Bolt & Nut Company, Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh.
Republic Iron & Steel Co., Pittsburgh, Pa.
Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.
Upson Nut Co., Cleveland, O.

Bolts, Boiler Patch—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.
Detroit Screw Works, Detroit, Mich.
Samuel Hall's Sons, 229-233 W. 10th St., New York.

Hartford Machine Screw Co., Hartford, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Pittsburgh Screw & Bolt Co., Pittsburgh.
St. Louis Screw Co., St. Louis, Mo.
Worcester Machine Screw Co., Worcester, Mass.

Bolts, Boiler Stay—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
Sam'l Hall's Sons, 229-233 West 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
Lockhart Iron & Steel Co., Pittsburgh.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh.
Republic Iron & Steel Co., Pittsburgh, Pa.
St. Louis Screw Co., St. Louis, Mo.

Bolts, Book Case—
Reading Hardware Co., Reading, Pa.

Bolts, Bottom Spring—
(See Bolts, Door.)

Bolts, Brass and Bronze—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Clark Bros. Bolt Co., Milldale, Ct.
Detroit Screw Works, Detroit, Mich.
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.

Hartford Machine Screw Co., Hartford, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Kilborn & Bishop Co., New Haven, Ct.
Ohio Nut & Bolt Co., Berea, O.
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
Steward & Romaine Mfg. Co., Philadelphia, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.
Bolts, Bridge and Roof—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Baltimore Bridge Co., Baltimore, Md.
Berlin Construction Co., Berlin, Ct.
Boston Bolt Co., Boston, Mass.
Carnegie Steel Co., Pittsburgh, Pa.

Eastern Bridge & Structural Co., Worcester, Mass.

Fort Pitt Forge Co., Pittsburgh, Pa.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.

Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh.
Republic Iron & Steel Co., Pittsburgh, Pa.
St. Louis Screw Co., St. Louis, Mo.
Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.
Upson Nut Co., Cleveland, O.

Bolts, Cabinet—
(See Screws, Bed.)

Bolts, Carpenters' Bracket—
Boston Bolt Co., Boston, Mass.

Bolts, Carriage—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Atlas Bolt & Screw Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.
Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Garland Nut & Rivet Co., Pittsburgh, Pa.
Graham Nut Co., Pittsburgh, Pa.
Kirk-Latty Mfg. Co., Cleveland, O.
M. Lanz & Sons, Pittsburgh, Pa.
McBee Hanger Mfg. Co., 425-427 W. 25th St., New York.

Franklin Moore Co., Winsted, Ct.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.
Republic Iron & Steel Co., Pittsburgh, Pa.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Check—
American Bolt Co., New Haven, Ct.

Bolts, Copper—
Detroit Screw Works, Detroit, Mich.
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Kilborn & Bishop Co., New Haven, Ct.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Bolts, Countersunk—
(See Bolts, Special, &c.)

Bolts, Coupling—
(See Bolts, Special.)

Bolts, Cultivator and Guard
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
Clark Bros. Bolt Co., Milldale, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Cupboard—
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Bolts, Dash—
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Clark Bros. Bolt Co., Milldale, Ct.

Franklin Moore Co., Winsted, Ct.

Upson Nut Co., Cleveland, O.

Bolts, Door—
Arade Mfg. Co., Freeport, Ill.

Columbia Grey Iron Co., Columbia, Pa.

Fanner Mfg. Co., Cleveland, O.

Griffin Mfg. Co., Erie, Pa.

H. B. Ives Co., New Haven, Ct.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.

Stanley Works, New Britain, Ct.

Taylor & Boggs Foundry Co., Cleveland, O.

Wrightsville Hardware Co., Wrightsville, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Bolts, Double Awning—
M. Lanz & Sons, Pittsburgh, Pa.

Bolts, Drift—
(See Spikes, Dock, Wharf, &c.)

Bolts, Elevator Bucket—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Avery Stamping Co., Cleveland, O.

Clark Bros. Bolt Co., Milldale, Ct.

W. J. Clark Co., Salem, O.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Samuel Hall's Sons, 223-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Republic Iron & Steel Co., Pittsburgh, Pa.

Upson Nut Co., Cleveland, O.

Lockhart Iron & Steel Co., Pittsburgh, Pa.

Bolts, Expansion, Brass, Bronze, &c.—
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Bolts, Expansion, Lag Screw and Wood Screw—
Boston Bolt Co., Boston, Mass.

Brohard Co., 1624 No. 9th St., Philadelphia, Pa.

Diamond Expansion Bolt Co., 9-15 Murray St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Star Expansion Bolt Co., 147-149 Cedar St., New York.

Steward & Romaine Mfg. Co., Philadelphia, Pa.

Bolts, Expansion, Single and Double—
Boston Bolt Co., Boston, Mass.

Isaac Church, South Norwalk, Ct.

Diamond Expansion Bolt Co., 9-15 Murray St., New York.

F. H. Evans, Brooklyn, N. Y.

Grabler Mfg. Co., Cleveland, O.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

A. C. Seaman, 1638 Hutchinson St., Philadelphia, Pa.

Star Expansion Bolt Co., 147-149 Cedar St., New York.

Steward & Romaine Mfg. Co., Philadelphia, Pa.

Bolts, Extension—
Yale & Towne Mfg. Co., 9 Murray St., New York.

Bolts, Eye—
American Bridge Co. of New York, 42 Broadway, New York.

American Iron & Steel Mfg. Co., Lebanon, Pa.

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Bethlehem Steel Co., Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.

Boston Bolt Co., Boston, Mass.

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.

Clark Bros. Bolt Co., Milldale, Ct.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Samuel Hall's Sons, 223-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Hirsch Rolling Mill Co., St. Louis, Mo.

Keystone Drop Forge Works, Chester, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

National Bolt & Nut Co., Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Parker Wire Goods Co., Worcester, Mass.

Republic Iron & Steel Co., Pittsburgh, Pa.

Rhode Island Tool Co., Providence, R. I.

St. Louis Screw Co., St. Louis, Mo.

Strieby & Foot Co., Newark, N. J.

W. & J. Tiebout, 118 Chambers St., N. Y.

Transue & Williams Co., Alliance, O.

Upson Nut Co., Cleveland, O.

J. H. Williams & Co., Brooklyn, N. Y.

Wire Goods Co., Worcester, Mass.

Bolts, Fancy (Cone, Steep, Elliptic, Thread, Body Loop, &c.)—
Clark Bros. Bolt Co., Milldale, Ct.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Franklin Moore Co., Winsted, Ct.

Rhode Island Tool Co., Providence, R. I.

Upson Nut Co., Cleveland, O.

(See also Bolts, Special.)

Bolts, Fin Head—
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Kirk-Latty Mfg. Co., Cleveland, O.

Ohio Nut & Bolt Co., Berea, O.

Bolts, Fitting Up—
St. Louis Screw Co., St. Louis, Mo.

Bolts, Foot Chain—
(See Bolts, Door.)

Bolts, Forged—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Bethlehem Steel Co., So. Bethlehem, Pa.

Boston Bolt Co., Boston, Mass.

Clark Bros. Bolt Co., Milldale, Ct.

Detroit Screw Works, Detroit, Mich.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Rhode Island Tool Co., Providence, R. I.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Titusville Forge Co., Titusville, Pa.

Bolts, Foundation—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
Belmont Iron Works, Inc., Philadelphia.
Boston Bolt Co., Boston, Mass.
Fort Pitt Forge Co., Pittsburgh, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.

M. Lanz & Sons, Pittsburgh, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Bolts, Galvanized—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Clark Bros. Bolt Co., Milldale, Ct.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
Thomas Laughlin Co., Portland, Me.
National Bolt & Nut Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
Rhode Island Tool Co., Providence, R. I.
W. & J. Tiebout, 118 Chambers St., N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Bolts, Guard—
(See Bolts, Cultivator.)

Bolts, Hanger—
(See Bolts, Special.)

Bolts, Hollow Stay—
Falls Hollow Staybolt Co., Cuyahoga Falls, O.

National Tube Co., Pittsburgh, Pa.

Bolts, Hook—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Grabler Mfg. Co., Cleveland, O.
M. Lanz & Sons, Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Upson Nut Co., Cleveland, O.

Bolts, Iron—
Hirsch Rolling Mill Co., St. Louis, Mo.

Bolts, Key—
St. Louis Screw Co., St. Louis, Mo.

Bolts, King—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

E. D. Clapp Mfg. Co., Auburn, N. Y.
Clark Bros. Bolt Co., Milldale, Ct.
Richard Eccles Co., Auburn, N. Y.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
M. Seward & Son Co., New Haven, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Loom—
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Thomas Smith Co., Worcester, Mass.
Upson Nut Co., Cleveland, O.

Bolts, Machine—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.
Boston Bolt Co., Boston, Mass.
Clark Bros. Bolt Co., Milldale, Ct.
Detroit Screw Works, Detroit, Mich.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Garland Nut & Rivet Co., Pittsburgh, Pa.
Grabler Mfg. Co., Cleveland, O.
Graham Nut Co., Pittsburgh, Pa.
Sam'l Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Kirk-Latty Mfg. Co., Cleveland, O.
M. Lanz & Sons, Pittsburgh, Pa.
McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Milton Mfg. Co., Milton, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
Rhode Island Tool Co., Providence, R. I.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

St. Louis Screw Co., St. Louis, Mo.
Shelton Co., Shelton, Ct.
Thomas Smith Co., Worcester, Mass.
Upson Nut Co., Cleveland, O.

Bolts, Mine Hanger. Expansion—
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Bolts, Mosquito Bar—
Reading Hardware Co., Reading, Pa.

Bolts, Planer Head—
Anthony Screw Co., Worcester, Mass.
Chicago Screw Co., 2 N. Canal St., Chicago, Ill.

Detroit Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.
Worcester Machine Screw Co., Worcester, Mass.

Bolts, Plow—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Clark Bros. Bolt Co., Milldale, Ct.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Garland Nut & Rivet Co., Pittsburgh, Pa.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Republic Iron & Steel Co., Pittsburgh, Pa.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Reach—

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Clark Bros. Bolt Co., Milldale, Ct.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Franklin Moore Co., Winsted, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Ring—

Grabler Mfg. Co., Cleveland, O.
Thomas Laughlin Co., Portland, Me.
W. & J. Tiebout, 118 Chambers St., N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Bolts, Screen—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Bolts, Seat—

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Clark Bros. Bolt Co., Milldale, Ct.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Franklin Moore Co., Winsted, Ct.
Ohio Nut & Bolt Co., Berea, O.
Upson Nut Co., Cleveland, O.

Bolts, Shackle—

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Clark Bros. Bolt Co., Milldale, Ct.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Upson Nut Co., Cleveland, O.

Bolts, Shutter—

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
Stanley Works, New Britain, Ct.

Bolts, Sink—

American Screw Co., Providence, R. I.
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Atlas Bolt & Screw Co., Cleveland, O.
Blake & Johnson Co., Waterbury, Ct.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Grabler Mfg. Co., Cleveland, O.
Kirk-Latty Mfg. Co., Cleveland, O.
Ohio Nut & Bolt Co., Berea, O.
Republic Iron & Steel Co., Pittsburgh, Pa.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Shelton Co., Shelton, Ct.
Upson Nut Co., Cleveland, O.

Bolts, Sleigh Shoe—

American Screw Co., Providence, R. I.
Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Kirk-Latty Mfg. Co., Cleveland, O.
Franklin Moore Co., Winsted, Ct.
Republic Iron & Steel Co., Pittsburgh, Pa.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Upson Nut Co., Cleveland, O.

Bolts, Socket—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Samuel Hall's Sons, 229-233 W. 10th St., New York.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Bolts, Solid Stay—

Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Bolts, Special — Coupling Screen, Deck, Hanger, Joint, Button Head, Bung Head, Boiler, Headless, Slotted Head, Hook Head, Pinch Head, Cube Head, &c.—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Anthony Screw Co., Worcester, Mass.
Atlas Bolt & Screw Co., Cleveland, O.
Blake & Johnson Co., Waterbury, Ct.
Boston Bolt Co., Boston, Mass.
Chicago Screw Co., 2 Canal St., Chicago, Ill.

Clark Bros. Bolt Co., Milldale, Ct.
Detroit Screw Works, Detroit, Mich.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.

Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Kirk-Latty Mfg. Co., Cleveland, O.
M. Lanz & Sons, Pittsburgh, Pa.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Franklin Moore Co., Winsted, Ct.
R. Munroe & Sons Corporation, Pittsburgh, Pa.

National-Acme Mfg. Co., Cleveland, O.
New Castle Forge & Bolt Co., New Castle, Pa.

Ohio Nut & Bolt Co., Berea, O.
Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Rhode Island Tool Co., Providence, R. I.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

St. Louis Screw Co., St. Louis, Mo.
Thomas Smith Co., Worcester, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Titusville Forge Co., Titusville, Pa.

Upson Nut Co., Cleveland, O.
Worcester Machine Screw Co., Worcester, Mass.

Bolts, Spring, Carriage—

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Clark Bros. Bolt Co., Milldale, Ct.
Garland Nut & Rivet Co., Pittsburgh, Pa.

Bolts, Square and Hexagon Heads—

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
Rhode Island Tool Co., Providence, R. I.

Bolts, Stove—

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Atlas Car & Mfg. Co., Cleveland, O.

Clark Bros. Bolt Co., Milldale, Ct.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Kirk-Latty Mfg. Co., Cleveland, O.

Ohio Nut & Bolt Co., Berea, O.

Republic Iron & Steel Co., Pittsburgh, Pa.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

St. Louis Screw Co., St. Louis, Mo.

Shelton Co., Shelton, Ct.

Upson Nut Co., Cleveland, O.

Bolts, Stud—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Clark Bros. Bolt Co., Milldale, Ct.

Detroit Screw Works, Detroit, Mich.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

New Haven Machine Screw Co., New Haven, Ct.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

Rhode Island Tool Co., Providence, R. I.

St. Louis Screw Co., St. Louis, Mo.

Strieby & Foote Co., Newark, N. J.

Upson Nut Co., Cleveland, O.

Worcester Machine Screw Co., Worcester, Mass.

Bolts, Tap—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Anchor Bolt & Nut Co., Poughkeepsie, N. Y.

Boston Bolt Co., Boston, Mass.

Clark Bros. Bolt Co., Milldale, Ct.

Detroit Screw Works, Detroit, Mich.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

Rhode Island Tool Co., Providence, R. I.

St. Louis Screw Co., St. Louis, Mo.

Upson Nut Co., Cleveland, O.

Bolts, Fire—

American Screw Co., Providence, R. I.

Atlas Bolt & Screw Co., Cleveland, O.

Atlas Car & Mfg. Co., Cleveland, O.

Clark Bros. Bolt Co., Milldale, Ct.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Kirk-Latty Mfg. Co., Cleveland, O.

Franklin Moore Co., Winsted, Ct.

Ohio Nut & Bolt Co., Berea, O.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelton Co., Shelton, Ct.

Upson Nut Co., Cleveland, O.

Bolts, Toggle—

(See Bolts, Anchor or Toggle.)

Bolts, Track—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Hirsch Rolling Mill Co., St. Louis, Mo.

Arthur Koppel Co., Pittsburgh, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

National Bolt & Nut Co., Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Pittsburgh Forge & Iron Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

Upson Nut Co., Cleveland, O.

Ernst Wiener Co., Broad and Beaver Sts., New York.

Bolts, Trunk and Sample Case—

R. C. Jenkinson & Co., Newark, N. J.

J. H. Sessions & Son, Bristol, Ct.

Bolts, U—

Grabler Mfg. Co., Cleveland, O.

Rhode Island Tool Co., Providence, R. I.

St. Louis Screw Co., St. Louis, Mo.

Bolts, Water Closet, Indicator—

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Bolts, Whiffletree—

Franklin Moore Co., Winsted, Ct.

Upson Nut Co., Cleveland, O.

Bolts, Window Spring—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Bolts, Window, Ventilating—

H. B. Ives Co., New Haven, Ct.

Superior Spring Hinge Co., 123 So. Clinton St., Chicago, Ill.

Bonds, Rail—

American Steel & Wire Co., The Rookery, Chicago, Ill.

General Electric Co., Schenectady, N. Y.

Morgan Spring Co., Worcester, Mass.

Ohio Brass Co., Mansfield, O.

Bone, Case Hardening—

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Bone Mills—

(See Mills, Bone.)

Book Binders' Machinery—

Sigourney Tool Co., Hartford, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Book Binder Wire—

(See Wire, Bottling, Book Binder, &c.)

Books, Paper and Card

(See Racks, Card, Book and Paper.)

Books—

David Williams Co., 14-16 Park Place, New York.

Books, Loose Leaf and Price—

David Williams Co., 14-16 Park Place, New York.

Books, Weight Ticket—

Standard Scale & Supply Co., Pittsburgh.

Boom Travelers—

(See Travelers, Boom and Deck.)

Booster Sets, Electric—

C. & C. Electric Co., Garwood, N. J.

Jas. Clark, Jr., Electric Co., Louisville, Ky.

General Electric Co., Schenectady, N. Y.

Northern Electrical Mfg. Co., Madison, Wis.

Boot Calks, Jacks—
(See Calks, Jacks.)

Boots and Sewer Connections—
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Boots, Elevator—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
W. J. Clark Co., Salem, O.
Interstate Engineering Co., Bedford, O.
Link-Belt Co., Philadelphia, Pa.

Boots, Interfering—
Covert Mfg. Co., Troy, N. Y.

Borers, Bung Hole—
Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Borers, Erwin Mfg. Co., 4347 Chambers St., New York.

Borers, James Swan Co., Seymour, Ct.

Borers, Counter—
Cleveland Twist Drill Co., Cleveland, O.
Morse Twist Drill & Machine Co., New Bedford, Mass.

Boring and Drilling Machines, Horizontal—
Lucas Machine Tool Co., Cleveland, O.

Boring and Facing Machines, Duplex Pump—
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring and Polishing Machines, Electrical—
United States Electrical Tool Co., Cincinnati, O.

Boring and Turning Mills—
(See Mills, Boring and Turning.)

Boring and Turning Mills, Steel Tire—
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Bars—
Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Bars for Lathe Work—
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.

Boring Bars for Locomotive Cylinder—
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Bars for Locomotive Cylinders, Portable—
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Bars for Locomotive Cylinders, Portable—
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.

Boring, Drilling and Milling Machines, Horizontal—
Lucas Machine Tool Co., Cleveland, O.

Boring Machines, Car Box—
Detrick & Harvey Mch. Co., Baltimore, Md.
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Machines, Car Wheel—
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Machines, Carpenters—
Hobbs Mfg. Co., Worcester, Mass.
Millers Falls Co., 28 Warren St., N. Y.
Oliver Machinery Co., Grand Rapids, Mich.
Smith & Hemenway Co., 108-110 Duane St., New York.

Boring Machines, Cylinder—
Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Machines, Electric—
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.

Boring Machines, Electricals, and Plumbers—
Ford Auger Bit Co., Holyoke, Mass.

Boring Machines for Sash Pulleys—
Wrightsville Hardware Co., Wrightsville, Pa.

Boring Machines, Gang—
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Machines, Horizontal—
Williams, White & Co., Inc., Moline, Ill.

Boring Machines, Hub—
(See Hub Boring Machines.)

Boring Machines, Last—
Hobbs Mfg. Co., Worcester, Mass.

Boring Machines, Locomotive—
Espin-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Machines, Man Hole—
Niles-Bement-Pond Co., 111 Broadway, New York.

Boring Machines, Pulley—
Cincinnati Pulley Machinery Co., Cincinnati, O.

Boring Machines, Sash and Blind—
Grand Rapids Hardware Co., Grand Rapids, Mich.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Boring Machines, Vertical—
Hoefler Mfg. Co., Freeport, Ill.

Boring Machines, Wood—
Badger Machine Co., Janesville, Wis.
Fox Machine Co., Grand Rapids, Mich.
Hobbs Mfg. Co., Worcester, Mass.

Ingersoll-Rand Co., 11 Broadway, New York.
Oliver Machinery Co., Grand Rapids, Mich.
United States Electrical Tool Co., Cincinnati, O.

Boring Machines. Wood.

Pneumatic—
Helwig Mfg. Co., St. Paul, Minn.
Boring Tools. Metal and Wood—

Armstrong Bros. Tool Co., Chicago, Ill.
Goodell Mfg. Co., Greenfield, Mass.
Keystone Mfg. Co., Buffalo, N. Y.
Milers Falls Co., 28 Warren St., N. Y.

Bosh Plates—

Best Mfg. Co., Pittsburgh, Pa.

Bottle Cap Machinery—

V. & O. Press Co., Brooklyn, N. Y.

Bottle Holders. Cham-

pagne—
(See Holders, Bottle, Silver Plated.)

Bottles. Steel—

Avery Stamping Co., Cleveland, O.
National Tube Co., Pittsburgh, Pa.
Standard Welding Co., Cleveland, O.

Bottling Machinery—

Vilter Mfg. Co., Milwaukee, Wis.

Bottling Wire—

(See Wire, Bottling, Book Binder, &c.)

Bottoms. Can and Barrel—

W. J. Clark Co., Salem, O.

Bowers. Shutter—

F. P. Smith & Co., Sharon Hill, Pa.

Bowie Knives—

Adolph Kastor & Bros., 109 Duane St., New York.

Bowls. Berry. Fruit. Ice.

Sugar, &c. Silver and Silver Plated—

International Silver Co., Meriden, Ct.

Bowls. Brazing—

Joseph Dixon Crucible Co., Jersey City, N. J.

Bowls. Cream Separator—

Standard Welding Co., Cleveland, O.

Bowls. Forged Separator—

Avery Stamping Co., Cleveland, O.

Bowls. Ladle. Pressed Steel—

W. J. Clark Co., Salem, O.

Bowls. Punch. Silver

Plated—

International Silver Co., Meriden, Ct.

Bowls. Salad—

International Silver Co., Meriden, Ct.

Bowls. Scotch. Steel—

Avery Stamping Co., Cleveland, O.

Bows. Ox—

American Fork & Hoe Co., Cleveland, O.

Box Board Sawing and Fin-

ishing Machinery—

Badger State Machine Co., Janesville, Wis.

Box Board Sawing and Fin-

ishing Machinery—

Peter Gerlach Co., Cleveland, O.

Box Chisels, &c.—

(See Chisels, Box.)

Box Factory Machinery—

Hobbs Mfg. Co., Worcester, Mass.

Boxes and Cases. Packing—

H. F. Brammer Mfg. Co., Davenport, Ia.

A. H. Green Co., 97-101 Warren St., N. Y.

Boxes and Jars. Cigar. Silver Plated—

International Silver Co., Meriden, Ct.

Boxes and Trays. Shop—

Manufacturing Equipment & Engineering Co., Boston, Mass.

Boxes. Annealing—

W. J. Clark Co., Salem, O.

Boxes. Boiler and Construction Co., Lowellville, O.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Boxes. Anger Bit—

Tower & Lyon Co., 95 Chambers St., New York.

Boxes. Cash and Bond—

Miller Lock Co., Philadelphia, Pa.

Boxes. Coal—

W. J. Clark Co., Salem, O.

Boxes. Document—

Jesse Jones Paper Box Co., 615-617 Commerce St., Philadelphia, Pa.

Boxes. Draining—

W. J. Clark Co., Salem, O.

Boxes. Dumping—

W. J. Clark Co., Salem, O.

Boxes. Electrical Switch

and Outlet—

Bossert Electric Construction Co., Utica, N. Y.

Boxes. Universal Caster & Foundry Co., 1170 Broadway, New York.

W. J. Clark Co., Salem, O.

Boxes. Emery—

W. J. Clark Co., Salem, O.

Boxes. Farrier Tool—

B. B. Noyes & Co., Greenfield, Mass.

Boxes. Feed—

(See Mangers.)

Boxes. Galvanized Steel

Storage—

Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

Boxes. Galvanizing—

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Boxes. Glove. Match. Powder, Soap, Stamp, &c., Silver and Silver Plated—

International Silver Co., Meriden, Ct.

Boxes. Hardware—

(See Boxes, Shelf.)

Boxes. I. C. Electric Con-

duct—

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Boxes. Journal. Railroad—

T. H. Symington Co., Baltimore, Md.

Boxes. Letter—

Dufur & Co., Baltimore, Md.

Boxes. Lock—

Kilbourne Mfg. Co., Troy, N. Y.

Boxes. Lock Corner—

A. H. Green Co., 97-101 Warren St., N. Y.

Boxes. Magneto, to Order—

Union Hardware Co., Torrington, Ct.

Boxes. Mail—

Forest City Foundry & Mfg. Co., Cleveland, O.

Boxes. Mail—

Griswold Mfg. Co., Erie, Pa.

Boxes. Mail—

Wm. F. Heise Mfg. Co., 35 Union Park, Ct.; Chicago, Ill.

Kilbourne Mfg. Co., Troy, N. Y.
 Stuart & Peterson Co., Burlington, N. J.
 Taylor & Boggs Foundry Co., Cleveland.

Boxes, Mail, Rural—
 Johnson Mfg. Co., Urbana, O.

Boxes, Meter—
 Goodell Mfg. Co., Greenfield, Mass.
 C. E. Jennings & Co., 42 Murray St.,
 New York.

Millers Falls Co., 28 Warren St., N. Y.
 Powell Tool Co., Worcester, Mass.
 Smith & Hemenway Co., 108-110 Duane
 St., New York.

Stanley Rule & Level Co., New Brit-
 ain, Ct.

Tower & Lyon Co., 95 Chambers St.,
 New York.

Boxes, Mortar—
 W. J. Clark Co., Salem, O.

Boxes, Nail—
 W. J. Clark Co., Salem, O.

Boxes, Oil Waste—
 (See Can, Oily Waste.)

Boxes, Paper—
 Jesse Jones Paper Box Co., 615-617 Com-
 merce St., Philadelphia, Pa.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Boxes, Post Office Lock—
 Eagle Lock Co., Terryville, Ct.

Yale & Towne Mfg. Co., 9 Murray St.,
 New York.

Boxes, Roller Bearing
Shaft—

Bancroft & Co., Philadelphia, Pa.

Boxes, Shaft Bearing—
 Bancroft & Co., Philadelphia, Pa.

W. E. Caldwell Co., Louisville, Ky.

H. W. Caldwell & Son Co., Western Ave.,
 11th and 18th Sts., Chicago, Ill.

Falls River & Machine Co., Cuyahoga
 Falls, O.

Link-Belt Co., Inc., Philadelphia, Pa.
 Wickes Bros., Saginaw, Mich.

Boxes, Shelf—
 Gem Mfg. Co., Boston, Mass.

A. H. Green Co., 97-101 Warren St., N. Y.

W. C. Heller & Co., Montpelier, O.

Jesse Jones Paper Box Co., 615-617 Com-
 merce St., Philadelphia, Pa.

C. P. Moore, Ravenswood, W. Va.

Terrell's Equipment Co., Grand Rapids,
 Mich.

Boxes, Shoe Blacking—
 Louis Sacks, Newark, N. J.

Boxes, Shop—
 Gem Mfg. Co., Boston, Mass.

Globe Machine & Stamping Co., Clevel-
 and, O.

Boxes, Skeleton—
 W. J. Clark Co., Salem, O.

Boxes, Steaming—
 W. J. Clark Co., Salem, O.

Boxes, Steel Storage—
 W. J. Clark Co., Salem, O.

Wm. B. Scaffie & Sons Co., Pittsburgh.

Boxes, Steel Wall—
 (See Telegraph and Telephone.)

**Boxes, Stop Cock, Exten-
 sion—**
 Central Foundry Co., 37 Wall St., N. Y.

Boxes, Tin—
 Eastern Machine & Stamping Co., Provi-
 dence, R. I.

Boxes, Tool—
 Chas. H. Besly & Co., 15-21 Clinton St.,
 Chicago, Ill.

W. J. Clark Co., Salem, O.
 Globe Machine & Stamping Co., Clevel-
 and, O.

Boxes, Tote—
 Avery Stamping Co., Cleveland, O.

W. J. Clark Co., Salem, O.
 Gem Mfg. Co., Boston, Mass.

Globe Machine & Stamping Co., Clevel-
 and, O.

Kilbourne & Jacobs Mfg. Co., Colum-
 bus, O.

Turner, Vaughn & Taylor Co., Cuyahoga
 Falls, O.

Boxes, Treasure—
 Miller Lock Co., Philadelphia, Pa.

Boxes, Tree—
 (See Guards, Tree.)

Boxes, Twine—
 John Chatillon & Sons, 85-93 Cliff St.,
 New York.

Columbia Grey Iron Co., Columbia, Pa.

Landers, Frary & Clark, New Britain, Ct.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette
 St., New York.

Wire Goods Co., Worcester, Mass.

Boxes, Wash—
 W. J. Clark Co., Salem, O.

Boxes, Waste, Cast Iron—
 Bethlehem Foundry & Machine Co.,
 South Bethlehem, Pa.

Geo. V. Cresson Co., 18th St. & Alle-
 gheny Ave., Philadelphia, Pa.

Boxwood Rules—
 (See Rules, Boxwood.)

Boys' Hand Cars—
 (See Vehicles, Level Propelling, Child's.)

Braces and Rail, Top—
 E. D. Clapp Mfg. Co., Auburn, N. Y.

Braces, Arm—
 (See Telegraph and Telephone.)

Braces, Binding, Casket—
 R. C. Jenkinson & Co., Newark, N. J.

Braces, Bit—
 John S. Fray & Co., Bridgeport, Ct.

Goodell-Pratt Co., Greenfield, Mass.

John H. Graham & Co., 113 Chambers
 St., New York.

C. E. Jennings Co., 42 Murray St., N. Y.

H. H. Mayhew & Co., Shelburne Falls,
 Mass.

Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Stanley Rule & Level Co., New Britain,
 Ct.

Braces, Corner Boring—
 John S. Fray & Co., Bridgeport, Ct.

Goodell-Pratt Co., Greenfield, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.

Braces, Extension—
 John S. Fray & Co., Bridgeport, Ct.

Millers Falls Co., 28 Warren St., N. Y.

Braces, Rudder—
 W. & J. Tiebout, 118 Chambers St., N. Y.

Braces, Skate, Ankle—
 Samuel Winslow Skate Mfg. Co., Worces-
 ter, Mass.

Bracket Saws—
 (See Saws, Scroll.)

Brackets—
 (See Architectural Sheet Metal Work.)

Brackets, Axe—
 W. & J. Tiebout, 118 Chambers St., N. Y.

- Brackets. Butchers' and Scale—**
Bernard Glockler Co., Pittsburgh, Pa.
- Brackets, Carpenters'—**
Boston Bolt Co., Boston, Mass.
- Brackets, Curtain Pole—**
(See Curtain and Upholstery Fixtures.)
- Brackets, Egg Beater—**
Taplin Mfg. Co., New Britain, Ct.
- Brackets, Electric Flexible—**
T. R. Almond Mfg. Co., Ashburnham, Mass.
- Brackets, Flag—**
Thomas Laughlin Co., Portland, Me.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.
- Brackets, Flower Pot—**
Andrews Wire & Iron Works, Rockford, Ill.
- Brackets, Sink—**
Columbia Grey Iron Casting Co., Columbia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.
- Brackets, Folding—**
Griffin Mfg. Co., Erie, Pa.
Stanley Works, New Britain, Ct.
- Brackets, Hand Rail—**
Arcade Mfg. Co., Freeport, Ill.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
- Brackets, Hay Rack—**
(See Clamps, Hay Rack.)
- Brackets, Insulator—**
Diamond Expansion Bolt Co., 9-15 Murray St., New York.
- Brackets, Lamp—**
Arcade Mfg. Co., Freeport, Ill.
Bevin Bros. Mfg. Co., E. Hampton, Ct.
Columbia Grey Iron Casting Co., Columbia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
Wrightsville Hardware Co., Wrightsville, Pa.
- Brackets, Office, Counter, &c.—**
(See Railing and Brackets, Office, Counter, &c.)
- Brackets, Piano—**
Susquehanna Casting Co., Wrightsville, Pa.
- Brackets, &c., Plumbing—**
(See Plumbing Supplies, &c.)
- Brackets, Pole—**
(See Telegraph and Telephone Pole Supplies.)
- Brackets, Rafter—**
F. E. Myers & Bro., Ashtland, O.
Ney Mfg. Co., Canton, O.
- Brackets, Roofing—**
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Stanley Rule & Level Co., New Britain, Ct.
- Brackets, Shade—**
Smith & Henway Co., 106-110 Duane St., New York.
- Brackets, Shelf—**
Arcade Mfg. Co., Freeport, Ill.
Atlas Mfg. Co., New Haven, Ct.
Columbia Grey Iron Casting Co., Columbia, Pa.
Griffin Mfg. Co., Erie, Pa.
McKinney Mfg. Co., Allegheny, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
Stanley Works, New Britain, Ct.
Susquehanna Casting Co., Wrightsville, Pa.
- Brackets, Shingling—**
(See Brackets, Roofing.)
- Brackets, Shovel, Hoe, Rake, Fork, &c.—**
W. C. Heller & Co., Montpelier, O.
- Brackets, Side and Roll—**
(See Architectural Sheet Metal Work)
- Brackets, Sink—**
Barnes Mfg. Co., Mansfield, O.
Central Foundry Co., 37 Wall St., N. Y.
Fanner Mfg. Co., Cleveland, O.
Griffin Mfg. Co., Erie, Pa.
- Brackets, Soap—**
(See Household Articles, Wire.)
- Brackets, Window screen Corner—**
Reading Hardware Co., Reading, Pa.
- Brads, Awls—**
(See Awls, Pegs, Brads, &c.)
- Brads, Tacks, Finishing Nails, &c.—**
(See Tacks, Brads, Finishing Nails, &c.)
- Braided Rope, Linen, &c.—**
(See Rope, Braided, Linen, &c.)
- Brake Beams, Car—**
American Steel Foundries, 42 Broadway, New York.
- Brake Chains, Shoes—**
(See Chains, Shoes.)
- Brakes, Automobile—**
Globe Machine & Stamping Co., Cleveland, O.
- Brakes, Coaster Bicycle—**
John H. Graham & Co., 113 Chambers St., New York.
- Brakes, Cornice—**
Niagara Machine & Tool Works, Buffalo, N. Y.
- Brakes, Magnetic—**
George A. Ohl & Co., Newark, N. J.
- Brakes, Electric—**
Electric Controller & Supply Co., Cleveland, O.
- Brakes, Engineering Works, Detroit, Mich.**
- Brands, Burning—**
A. G. Butler, 234-236 Pearl St., New York.
George M. Ness, 61 Fulton St., New York.
Schwerdtle Stamp Co., Bridgeport, Ct.
R. Woodman Mfg. & Supply Co., Boston.
- Brass and Copper Rods—**
Bridgeport Brass Co., 253 Broadway, New York.
Ohio Nut & Bolt Co., Berea, O.
Plume & Atwood Mfg. Co., Waterbury, Ct.
Riverside Metal Co., Riverside, N. J.
Seymour Mfg. Co., Seymour, Ct.
Waterbury Brass Co., Waterbury, Ct.
- Brass Bedsteads, Beds, &c.—**
(See Bedsteads, Beds, &c.)

- Brass, Brazing—**
Bridgeport Brass Co., 253 B'way, N. Y.
Hercules Brass & Bell Foundry, Cincinnati, O.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Plume & Atwood Mfg. Co., Waterbury, Ct.
Riverside Metal Co., Riverside, N. J.
Seymour Mfg. Co., Seymour, Ct.
- Brass, Embossed or Figured—**
Bridgeport Brass Co., 253 B'way, N. Y.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Waterbury Brass Co., Waterbury, Ct.
- Brass Finishers—**
Clark Novelty Co., Rochester, N. Y.
J. J. Ryan & Co., 68 W. Monroe St., Chicago, Ill.
Whitlock Coil Pipe Co., Hartford, Ct.
- Brass Finishing Machines—**
Dresser Machine Tool Co., Cincinnati, O.
Niles-Bement-Pond Co., 111 Broadway, New York.
Pratt & Whitney Co., Hartford, Ct.
Warner & Swasey Co., Cleveland, O.
- Brass Goods—**
(See Cocks, Brass.)
- Brass, Iron—**
Bridgeport Brass Co., 253 B'way, N. Y.
Plume & Atwood Mfg. Co., Waterbury, Ct.
- Brass Knuckles—**
(See Gloves, Metal.)
- Brass, Ornamental—**
(See Iron, Brass, Bronze, Ornamental.)
- Brass, Perforated Sheet—**
Clinton Wire Cloth Co., Clinton, Mass.
Erdle Perforating Co., Rochester, N. Y.
Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441 Pearl St., N. Y.
E. B. Stimpson Co., 31 Spruce St., N. Y.
- Brass Quadrants, Skylight—**
(See Quadrants, Brass Skylight.)
- Brass, Roll and Sheet—**
Bridgeport Brass Co., 253 B'way, N. Y.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Plume & Atwood Mfg. Co., Waterbury, Ct.
Riverside Metal Co., Riverside, N. J.
Arthur T. Rutter & Co., 256-257 Broadway, New York.
Scovill Mfg. Co., Waterbury, Ct.
Seymour Mfg. Co., Seymour, Ct.
Waterbury Brass Co., Waterbury, Ct.
- Brass Rule, Printers—**
Plume & Atwood Mfg. Co., Waterbury, Ct.
Riverside Metal Co., Riverside, N. J.
- Brass Sheets, Platinum Plated—**
Ellwood Iron Tube Works, Oak Lane Sta., Philadelphia, Pa.
- Brass, Sign or Engravers—**
Bridgeport Brass Co., 253 B'way, N. Y.
Riverside Metal Co., Riverside, N. J.
Seymour Mfg. Co., Seymour, Ct.
- Brass, Spring—**
Bridgeport Brass Co., 253 B'way, N. Y.
Plume & Atwood Mfg. Co., Waterbury, Ct.
Riverside Metal Co., Riverside, N. J.
Seymour Mfg. Co., Seymour, Ct.
- Brass, White—**
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.
Clum & Atkinson, Rochester, N. Y.
- Breakers, Rail—**
Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
- Brass Wood Screws—**
(See Screws, Wood.)
- Brass Working Tools—**
(See Tools, Brass Working.)
- Brasses, Car—**
Ohio Brass Co., Mansfield, O.
Riverside Metal Co., Riverside, N. J.
- Brazers—**
(See Furnaces, Brazing.)
- Brazing Compound, Cast Iron—**
F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
- Brazing Plates—**
F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
- Brazing, to Order—**
Globe Machine & Stamping Co., Cleveland, O.
Otto Königslow Mfg. Co., Cleveland, O.
Whitlock Coil Pipe Co., Hartford, Ct.
- Bread and Cake Makers—**
(See Mixers, Dough.)
- Bread Baskets—**
(See Baskets, Bread.)
- Bread Coolers—**
(See Kitchen Articles, Wire.)
- Breakers, Ice—**
Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
Hilbert Machine Co., Cincinnati, O.
C. E. Jennings & Co., 42 Murray St., New York.
North Bros. Mfg. Co., American St. & Lehigh Ave., Philadelphia, Pa.
- Breakers, Rail—**
Gorge A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.
- Breakers, Skull—**
Thomas Carlin's Sons, Allegheny, Pa.
- Breaks, Peg—**
Louis Sacks, Newark, N. J.
- Breast Chains—**
(See Chains, Wagon and Fancy.)
- Breast Drills—**
(See Drills, Breast.)
- Brewery Machinery—**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Vilter Mfg. Co., Milwaukee, Wis.
- Brick, Acid Proof—**
American Refractories Co., Joliet, Ill.
Hayes Run Fire Brick Co., Orris, Pa.
Ostrander Fire Brick Co., Troy, N. Y.
- Brick, Blast Furnace Linings—**
American Refractories Co., Joliet, Ill.
- Brick, Boiler Door Arch and Jamb—**
Harrison-Walker Refractories Co., Pittsburgh, Pa.
- Brick, Chemical Works—**
American Refractories Co., Joliet, Ill.
Harrison-Walker Refractories Co., Pittsburgh, Pa.
Hayes Run Fire Brick Co., Orris, Pa.
Ostrander Fire Brick Co., Troy, N. Y.
- Brick Chisels, Drills, &c.—**
(See Chisels, Drills, &c.)
- Brick, Chrome—**
Harrison-Walker Refractories Co., Pittsburgh, Pa.

Brick, Fire—

American Refractories Co., Joliet, Ill.
Cyrus Borgner, 2d St. above Race, Philadelphia, Pa.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Hayes Run Fire Brick Co., Orvis, Pa.
Henry Maurer & Son, 429 East 23d St., New York.
Ostrander Fire Brick Co., Troy, N. Y.
M. D. Valentine & Bro., Woodbridge, N. J.

MERCHANTS.

C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.
Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
Shook & Fletcher, Birmingham, Ala.

Brick, Glass Works—

American Refractories Co., Joliet, Ill.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Hayes Run Fire Brick Co., Orvis, Pa.
Ostrander Fire Brick Co., Troy, N. Y.
M. D. Valentine & Bro., Woodbridge, N. J.

Brick, Hollow—

Hayes Run Fire Brick Co., Orvis, Pa.
Henry Maurer & Son., 429 East 23d St., New York.

Brick, Locomotive—

American Refractories Co., Joliet, Ill.
Harbison-Walker Refractories Co., Pittsburgh, Pa.

Brick Machinery—

Thos. Carlin's Sons, Allegheny, Pa.
Chambers Bros. Co., 52d St. below Lancaster Ave., Philadelphia, Pa.
Eastern Machinery Co., New Haven, Ct.

Brick, Magnesite—

Harbison-Walker Refractories Co., Pittsburgh, Pa.

Brick, Open Hearth—

Harbison-Walker Refractories Co., Pittsburgh, Pa.

Brick, Rotary Cement Kiln—

American Refractories Co., Joliet, Ill.
Hayes Run Fire Brick Co., Orvis, Pa.

Brick, Silica—

Harbison-Walker Refractories Co., Pittsburgh, Pa.

Brick Steel Siding—

(See Ceiling and Siding, Iron and Steel.)

Brick, Stove Fire—

American Refractories Co., Joliet, Ill.
Hayes Run Fire Brick Co., Orvis, Pa.
M. D. Valentine & Bro., Woodbridge, N. J.

Bricks, Emery and Corundum—

Monarch Emery & Corundum Wheel Co., Camden, N. J.
Superior Corundum Wheel Co., Waltham, Mass.
Vitriol Wheel Co., Westfield, Mass.

Bridge Bolts, &c.—

(See Bolts.)

Bridge Machinery—

Armstrong-Bum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.
Badger State Machine Co., Janesville, Wis.
Bertsch & Co., Cambridge City, Ind.

Fawcuss Machine Co., Pittsburgh, Pa.
Hilles & Jones Co., Wilmington, Del.
J. J. McCabe, 14 Dey St., New York.
Niles-Bemont-Pond Co., 111 Broadway, New York.
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
Vulcan Iron Works, 28 No. Irving Ave., Chicago, Ill.

MERCHANTS.

Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.
Motch & Merryweather Machinery Co., Cleveland, O.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Bridge Pins—

Bethlehem Steel Co., So. Bethlehem, Pa.
Columbia Bridge Co., Pittsburgh, Pa.
Columbia Steel & Shafting Co., Pittsburgh, Pa.
Finished Steel Co., Youngstown, O.

Bridge Railing—

Chester B. Albree Iron Works Co., Allegheny, Pa.

Bridge Rods—

(See Rods, Tie.)

Bridges—

(See Buildings and Bridges.)

Bridle Bits—

(See Bits, Bridle.)

Brine Hooks—

(See Hooks, Brine.)

Broaching Machines—

(See Presses, Broaching.)

Broilers—

Kilbourne Mfg. Co., Troy, N. Y.
Parker Wire Goods Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
Schneider & Trenkamp Division, American Stove Co., Cleveland, O.
Wire Goods Co., Worcester, Mass.

Broilers, Electric—

General Electric Co., Schenectady, N. Y.

Broilers, Gas—

Griswold Mfg. Co., Erie, Pa.

Brokers, Iron and Steel—

(See Iron and Steel Brokers and Merchants.)

Bronze, Aluminum—

Bridgeport Brass Co., 233 E'way, N. Y.

Bronze Bolts, Butts, &c.—

(See Bolts, Butts, &c.)

Bronze Forgings, Manganese—

(See Forgings, Manganese Bronze.)

Bronze, Manganese—

Bethlehem Steel Co., So. Bethlehem, Pa.
Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.
Crescent-Phosphorized Metal Co., Philadelphia, Pa.
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
Bronze Metal—
Chas. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.
Bridgeport Brass Co., 233 E'way, N. Y.
Ohio Brass Co., Mansfield, O.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
 Plume & Atwood Mfg. Co., Waterbury, Ct.
 Paul S. Reeves & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
 Seymour Mfg. Co., Seymour, Ct.

Bronze Phosphor—

Bethlehem Steel Co., So. Bethlehem, Pa.
 Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.
 Crescent-Phosphorized Metal Co., Philadelphia, Pa.

Hercules Brass & Bell Foundry, Cincinnati, O.

Morgan Engineering Co., Alliance, O.

Nolte Brass Co., Springfield, O.

Ohio Brass Co., Mansfield, O.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Bronze Rods—

(See Rods, Bronze.)

Bronze, Roll and Sheet—

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Seymour Mfg. Co., Seymour, Ct.

Waterbury Brass Co., Waterbury, Ct.

Bronzes, Ornamental—

Goodwin & Kintz Co., Winsted, Ct.

Broom Holders, Racks—

(See Household Articles, Wire.)

Brooms, Brewers'—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brooms, Chisel Handle—

Osborn Mfg. Co., Cleveland, O.

Brooms, Factory and Warehouse—

Osborn Mfg. Co., Cleveland, O.

Brooms, Railroad, Snow and Switch—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., 1021 No. Delaware Ave., Philadelphia, Pa.

Brooms, Steel, Wire, Fiber, &c.—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., 1021 No. Delaware Ave., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Walter A. Zelnicker Supply Co., St. Louis.

Brooms, Track—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brush, Copper—

(See Copper, Commutator Brush.)

Brush Sets, Silver Plated—

International Silver Co., Meriden, Ct.

Brushes, Bakers'—

Galton Mfg. Co., Cleveland, O.

Brushes, Billiard Table—

Osborn Mfg. Co., Cleveland, O.

Brushes, Bottle and Jar—

Galton Mfg. Co., Cleveland, O.

Brushes, Brewers'—

Galton Mfg. Co., Cleveland, O.

Brushes, Butchers', Packers'—

John Chatillon & Son, 85 Cliff St., N. Y.

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brushes, Carbon Commutator—

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Brushes, Carpet—

Galton Mfg. Co., Cleveland, O.

Brushes, Counter or Bench—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brushes, Creamery—

Galton Mfg. Co., Cleveland, O.

Brushes, Deck Scrub—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brushes, Dye—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brushes, Electroplating—

Galton Mfg. Co., Cleveland, O.

Hanson & Van Winkle Co., Newark, N. J.

Osborn Mfg. Co., Cleveland, O.

Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.

Brushes, Floor—

Galton Mfg. Co., Cleveland, O.

Brushes, Foundry—

Galton Mfg. Co., Cleveland, O.

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

J. D. Smith Foundry Supply Co., Cleveland, O.

Western Foundry Supply Co., Cliff and John Sts., New York.

Brushes, Fringe—

Galton Mfg. Co., Cleveland, O.

Brushes, Furnace and Heater—

Galton Mfg. Co., Cleveland, O.

Brushes, Furniture Rubbing—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brushes, Graphite Commutator—

Galton Mfg. Co., Cleveland, O.

Joseph Dixon Crucible Co., Jersey City.

Brushes, Horse—

Galton Mfg. Co., Cleveland, O.

Brushes, Key Washing—

Galton Mfg. Co., Cleveland, O.

Brushes, Machine—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brushes, Painters' Wire Scratch—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brushes, Paper Hangers'—

Galton Mfg. Co., Cleveland, O.

Brushes, Pine—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brushes, Platers'—

Galton Mfg. Co., Cleveland, O.

Osborn Mfg. Co., Cleveland, O.

Brushes, Printers' Lye—

Galton Mfg. Co., Cleveland, O.

Brushes, Radiator—

Galton Mfg. Co., Cleveland, O.

- Brushes, Railroad—**
Galton Mfg. Co., Cleveland, O.
Osborn Mfg. Co., Cleveland, O.
- Brushes, Rubber Bath—**
Springfield Tire & Rubber Co., Springfield, O.
- Brushes, Sanitary or Closet—**
Galton Mfg. Co., Cleveland, O.
- Brushes, Scrub—**
Galton Mfg. Co., Cleveland, O.
Osborn Mfg. Co., Cleveland, O.
- Brushes, Shoe—**
Galton Mfg. Co., Cleveland, O.
- Brushes, Silver and Silver Plated—**
International Silver Co., Meriden, Ct.
- Brushes, Silver Plate and Cut Glass—**
Galton Mfg. Co., Cleveland, O.
- Brushes, Sink—**
(See Cleaners, Sink.)
- Brushes, Steel Wire—**
Edward Darby & Sons, 233 Arch St., Philadelphia, Pa.
Galton Mfg. Co., Cleveland, O.
S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
J. D. Smith Foundry Supply Co., Cleveland, O.
- Brushes, Stove Polish—**
Galton Mfg. Co., Cleveland, O.
- Brushes, Tailors'—**
Galton Mfg. Co., Cleveland, O.
- Brushes, Tampico Wheel—**
Galton Mfg. Co., Cleveland, O.
- Brushes, Tumbler—**
Galton Mfg. Co., Cleveland, O.
Osborn Mfg. Co., Cleveland, O.
- Brushes, Whisk—**
Galton Mfg. Co., Cleveland, O.
- Brushes, Whitewash, Horse, Shoe, &c.—**
Galton Mfg. Co., Cleveland, O.
Osborn Mfg. Co., Cleveland, O.
- Brushes, Window—**
Galton Mfg. Co., Cleveland, O.
Osborn Mfg. Co., Cleveland, O.
- Brushes, Wire, Casting, Gearing, Flue, &c.—**
Chicago Flexible Shaft Co., 121 La Salle Ave., Chicago, Ill.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Estey Wire Works Co., 59 Fulton St. N. Y.
Galton Mfg. Co., Cleveland, O.
Osborn Mfg. Co., Cleveland, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
- Brushes, Wire, Horse, Hair, Cattle, &c.—**
Galton Mfg. Co., Cleveland, O.
Osborn Mfg. Co., Cleveland, O.
- Brushes, Wire Wheel—**
Galton Mfg. Co., Cleveland, O.
S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.
- Bucket Lips and Teeth—**
Taylor Iron & Steel Co., High Bridge, N. J.
- Buckets and Cups, Elevator—**
Avery Stamping Co., Cleveland, O.
- Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Brown Hoisting Machinery Co., Cleveland.
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
W. E. Caldwell Co., Louisville, Ky.
W. J. Clark Co., Salem, O.
Dodge Mfg. Co., Mishawaka, Ind.
Gifford-Wood Co., Arlington, Mass.
Hendrick Mfg. Co., Carbondale, Pa.
C. W. Hunt Co., West New Brighton, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Philadelphia, Pa.
- Buckets, Chain Pump, Rubber—**
Cleveland Galvanizing Wks., Cleveland, O.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
- Buckets, Clam Shell—**
American Steel Foundries, 42 Broadway, New York.
Browning Engineering Co., Cleveland, O.
Interstate Engineering Co., Bedford, O.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Philadelphia, Pa.
Northern Engineering Works, Detroit, Mich.
- Wellman-Seaver-Morgan Co., Cleveland, O.
- Buckets, Dope—**
Johnson Mfg. Co., Urbana, O.
- Buckets, Dredge—**
Interstate Engineering Co., Bedford, O.
Taylor Iron & Steel Co., High Bridge, N. J.
- Buckets, Elevator—**
W. J. Clark Co., Salem, O.
- Buckets, Elevator Pump—**
Cleveland Galvanizing Works, Cleveland.
- Buckets, Factory—**
W. J. Clark Co., Salem, O.
Gem Mfg. Co., Boston, Mass.
Gem Mfg. Co., Pittsburgh, Pa.
S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
- Buckets, Fire—**
W. J. Clark Co., Salem, O.
Johnson Mfg. Co., Urbana, O.
Steel Basket Co., Cedar Rapids, Ia.
Walter A. Zelnicker Supply Co., St. Louis.
- Buckets, Foundry—**
(See Pails, Foundry.)
- Buckets, Grab—**
Browning Engineering Co., Cleveland, O.
Interstate Engineering Co., Bedford, O.
Jeffrey Mfg. Co., Columbus, O.
- Buckets, Grease—**
Gem Mfg. Co., Pittsburgh, Pa.
- Buckets, Hoisting—**
Brown Hoisting Machinery Co., Cleveland.
Thomas Carlin's Sons, Allegheny, Pa.
W. J. Clark Co., Salem, O.
Hendrick Mfg. Co., Carbondale, Pa.
C. W. Hunt Co., West New Brighton, N. Y.
Interstate Engineering Co., Bedford, O.
Arthur Koppel Co., Pittsburgh, Pa.
Link-Belt Co., Philadelphia, Pa.
New Jersey Foundry & Machine Co., 2-15 Murray St., New York.
Northern Engineering Works, Detroit.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
Steel Basket Co., Cedar Rapids, Ia.

Wellman-Seaver-Morgan Co., Cleveland, O.
Ernst Wiener Co., Broad and Beaver
Sts., New York.

Buckets, Mortar—

Steel Basket Co., Cedar Rapids, Ia.

Buckets, Ore and Coal—

Brown Hoisting Machinery Co., Cleveland.
Browning Engineering Co., Cleveland, O.
H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

W. J. Clark Co., Salem, O.
Hendrick Mfg. Co., Carbondale, Pa.
Interstate Engineering Co., Bedford, O.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Philadelphia, Pa.
Northern Engineering Works, Detroit,
Mich.

Wm. E. Scaife & Sons Co., Pittsburgh, Pa.
Steel Basket Co., Cedar Rapids, Ia.
Wellman-Seaver-Morgan Co., Cleveland, O.
Ernst Wiener Co., Broad and Beaver
Sts., New York.

Buckets, Pump—

F. E. Myers & Bros., Ashland, O.

Buckets, Sand—

Johnson Mfg. Co., Urbana, O.

Buckets, Self Dumping—

Brown Hoisting Machinery Co., Cleveland.
Browning Engineering Co., Cleveland, O.
W. J. Clark Co., Salem, O.
R. H. Evans, Brooklyn, N. Y.
C. W. Hunt Co., West New Brighton,
N. Y.

Link-Belt Co., Philadelphia, Pa.
New Jersey Foundry & Machine Co., 9-
15 Murray St., New York.
Northern Engineering Works, Detroit,
Mich.

Steel Basket Co., Cedar Rapids, Ia.
Syracuse Chilled Plow Co., Syracuse, N. Y.
Wellman-Seaver-Morgan Co., Cleveland, O.
Ernst Wiener Co., Broad and Beaver
Sts., New York.

Buckets, Tar—

W. J. Clark Co., Salem, O.

Buckets, Tote—

W. J. Clark Co., Salem, O.

Buckets, Water—

Johnson Mfg. Co., Urbana, O.
Steel Basket Co., Cedar Rapids, Ia.

Buckets, Well—

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

Buckle Machinery, Wire—

Baird Machine Co., Oakville, Ct.
E. J. Manville Machine Co., Waterbury,
Ct.

Buckle Plates—

American Bridge Co. of New York, 42
Broadway, New York.

Buckles, Artic—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Buckles, Automobile and

Carriage Top—

North & Judd Mfg. Co., New Britain, Ct.

Buckles, Back Band—

Stanley Works, New Britain, Ct.
Buckles, Bale Tie—
Acme Steel Goods Co., 2834-2840 Archer
Ave., Chicago, Ill.

Buckles, Belt, Men's and

Women's—
North & Judd Mfg. Co., New Britain, Ct.

Buckles, Pipe—

Samuel Hall's Sons, 229-233 W. 10th St.,
New York.

Buckles, Shoe—

North & Judd Mfg. Co., New Britain, Ct.

Buckles, Toothless and

Tineless—
Sleeth-Brook & Seaman Co., 253 Broad-
way, New York.

Buckles, Trunk and Bag—

R. C. Jenkinson & Co., Newark, N. J.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Buckles, Wire—

Spencer Wire Co., Worcester, Mass.

Bucks, Wood Saw—

E. C. Atkins & Co., Indianapolis, Ind.
Henry Disston & Sons, Philadelphia, Pa.

Buffer Steels—

(See Steels, Buffer and Scraper.)

Buffers, Horseshoers'—

Heller Bros. Co., Newark, N. J.

Buffing and Polishing Ma-

chines—
American Blower Co., Detroit, Mich.

Badger State Machine Co., Janesville,
Wis.

C. H. Besly & Co., 15-21 S. Clinton St.,
Chicago, Ill.

J. C. Blount Co., Everett, Mass.

Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Builders Iron Foundry, Providence, R. I.
Chicago Flexible Shaft Co., 124 La Salle
Ave., Chicago, Ill.

Diamond Machine Co., Providence, R. I.

Fox Machine Co., Grand Rapids, Mich.

Garvin Mch. Co., Spring and Varick Sts.,
New York.

Goodell-Pratt Co., Greenfield, Mass.

Hanson & Van Winkle Co., Newark, N. J.

W. H. Leland & Co., Worcester, Mass.

Northampton Emery Wheel Co., Leeds,
Mass.

Ransom Mfg. Co., Oshkosh, Wis.

Safety Emery Wheel Co., Springfield, O.

Springfield Mfg. Co., Bridgeport, Ct.

Star Corundum Wheel Co., Detroit, Mich.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

United States Electrical Tool Co., Cincin-
nati, O.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Webster & Perks Tool Co., Springfield, O.

Whitman & Barnes Mfg. Co., Chicago,
Ill.

Zucker & Levett & Loeb Co., 526-530 West
25th St., New York.

MERCHANTS.

Hannan & Finton, Springfield, Mass.

Hill, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Marshall & Husehart Machinery Co., 62
S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co.,
Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty
St., New York.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
Vandyck-Churchill Co., 8 Day St., N. Y.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Buffing and Polishing Machines, Electrical—
Bridgeport Safety Emery Wheel Co., Inc., Bridgeport, Ct.

Gem Mfg. Co., Pittsburgh, Pa.
General Electric Co., Schenectady, N. Y.
Northern Electrical Mfg. Co., Madison, Wis.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Buffing Supplies—
(See Polishing and Buffing Supplies.)

Bufs—
Diamond Machine Co., Providence, R. I.
Hanson & Van Winkle Co., Newark, N. J.
Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.

Buggies—
(See Vehicles, Buggies, Carriages, &c.)
Buggies, Ore, Coal, Cinder, &c.—

Thomas Carlin's Sons, Allegheny, Pa.
Hendrick Mfg. Co., Carbondale, Pa.
Snefield Car Co., Three Rivers, Mich.

Buggies, Wire—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Builders' Hardware, to Order—
Boston Pressed Metal Co., Worcester, Mass.

Building Fronts—
(See Fronts, Building, Sheet Iron.)
Building Material, Fire Proof—

Henry Maurer & Son, 420 East 23d St., New York.

Buildings and Bridges—
American Bridge Co. of New York, 42 Broadway, New York.
Baltimore Bridge Co., Baltimore, Md.
Belmont Iron Works, Inc., Philadelphia.
Berlin Construction Co., Berlin, Ct.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Boston Bridge Works, Boston, Mass.
Carnegie Steel Co., Pittsburgh, Pa.
Eastern Bridge & Structural Co., Worcester, Mass.

Forest City Steel & Iron Co., Cleveland, O.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Interstate Engineering Co., Bedford, O.
Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.

W. N. Kratzer & Co., Pittsburgh, Pa.
McClintic-Marshall Construction Co., Pittsburgh, Pa.

National Iron & Wire Co., Cleveland, O.
Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.

Stewart Iron Works Co., Cincinnati, O.
Van Dorn Iron Works Co., Cleveland, O.
Virginia Bridge & Iron Co., Roanoke, Va.
Vollkommer & Hagen, Pittsburgh, Pa.

Buildings, Election Booth—
Forest City Steel & Iron Co., Cleveland, O.

Van Dorn Iron Works Co., Cleveland, O.
Bulbs, Plumbers' Furnace—
H. O. Canfield Co., Bridgeport, Ct.

Bull Leaders, Rings—
(See Leaders, Rings.)

Bull Tongues—
Harrow Spring Co., Kalamazoo, Mich.

Bulldozers—
Ajax Mfg. Co., Cleveland, O.
Badger State Machine Co., Janesville, Wis.

E. W. Bliss Co., Brooklyn, N. Y.
Hilles & Jones Co., Wilmington, Del.
Long & Allstatter Co., Hamilton, O.
National Machinery Co., Tiffin, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Williams, White & Co., Moline, Ill.

MERCHANTS—
W. R. Beatty Machinery & Equipment Co., Pittsburgh, Pa.
Scully Steel & Iron Co., 69 No. Halsted St., Chicago, Ill.

Bull's, Dead, Eyes, &c.—
(See Eyes, Dead, Bull's, &c.)

Bull's Eyes or Lizards, Floor—

W. & J. Tiebout, 118 Chambers St., N. Y.
Bumpers and Springs, Rubber—

New York Belting & Packing Co., 91-93 Chambers St., New York.
Springfield Tire & Rubber Co., Springfield, O.

Bumpers, Screw—
H. O. Canfield Co., Bridgeport, Ct.

Bung Head Bolts—
(See Bolts, Special.)

Bung Hole Borers—
(See Borers, Bung Hole.)

Bung Starters—
(See Starters, Bung.)

Bungalows, Portable—
(See Houses, Portable.)

Bungs, Oil Can—
Taylor & Boggs Foundry Co., Cleveland, O.

Burglar Proof Door Security—

(See Fasteners, Door, Burglar Proof.)
Burglar Proof Vaults—

(See Vaults, Fire and Burglar Proof.)
Burners, Core Oven—

W. N. Best American Calorific Co., 11 Broadway, N. Y.
Monarch Engineering & Mfg. Co., Baltimore, Md.

Emil E. Steiner, Newark, N. J.

Burners, Fuel, Oil or Tar—
W. N. Best American Calorific Co., 11 Broadway, New York.

Clayton Air Compressor Works, 114-118 Liberty St., New York.
Globe Machine & Stamping Co., Cleveland, O.

Monarch Engineering & Mfg. Co., Baltimore, Md.

Petroleum Iron Works Co., Sharon, Pa.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

- Burners, Gas—**
Hess-Snyder Co., Massillon, O.
Schneider & Trenkamp Division, American Stove Co., Cleveland, O.
Scovill Mfg. Co., Waterbury, Ct.
Emil E. Steiner, Newark, N. J.
Tate, Jones & Co., Inc., Pittsburgh, Pa.
- Burners, Gasoline Stove—**
Niagara Machine & Tool Works, Buffalo, N. Y.
Schneider & Trenkamp Division, American Stove Co., Cleveland, O.
- Burners, Hydro-Carbon—**
W. N. Best American Calorific Co., 11 Broadway, New York.
- Burners, Kerosene—**
Bridgeport Brass Co., 253 Broadway, N.Y.
Globe Machine & Stamping Co., Cleveland, O.
Plume & Atwood Mfg. Co., Waterbury, Ct.
Scovill Mfg. Co., Waterbury, Ct.
- Burners, Kerosene, Heating—**
Clark Novelty Co., Rochester, N. Y.
- Burners, Natural Gas—**
Monarch Engineering & Mfg. Co., Baltimore, Md.
Tate, Jones & Co., Inc., Pittsburgh, Pa.
- Burners, Paint—**
Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
- Burning Brands—**
(See Brands, Burning.)
- Burnishers, Cabinet Makers—**
Buck Bros., Millbury, Mass.
Tuck Mfg. Co., Brockton, Mass.
- Burnishers, Electric Driven—**
Coates Clipper Mfg. Co., Worcester, Mass.
- Burring Machines, Nut—**
Acme Machinery Co., Cleveland, O.
National Machinery Co., Tiffin, O.
- Burrs, Copper—**
(See Rivets and Burrs, Copper.)
- Burrs, Riveting—**
(See Burrs, Steel.)
- Burrs, Steel—**
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Bettcher Mfg. Co., Cleveland, O.
Cobb & Drew, Inc., Plymouth, Mass.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Grand Crossing Tack Co., Grand Crossing, Ill.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
R. C. Jenkinson & Co., Newark, N. J.
McKinney Mfg. Co., Allegheny, Pa.
H. A. Matthews Mfg. Co., Seymour, Ct.
Nicoctown Plate Washer Co., 1822-50 W. Juniata St., Philadelphia, Pa.
J. H. Sessions & Son, Bristol, Ct.
Stanley Works, New Britain, Ct.
Wrought Washer Mfg. Co., Milwaukee, Wis.
(See also Washers, Wrought.)
- Bush Hooks—**
(See Hooks, Bush.)
- Bushed Chains—**
(See Chains, Bushed.)
- Bushings, Bredge—**
Link-Belt Co., Inc., Philadelphia, Pa.
Taylor Iron & Steel Co., High Bridge, N. J.
- Bushings, Expansion, for Milling Machines—**
Brown & Sharpe Mfg. Co., Providence, R. I.
- Bushings for Automobile and Marine Engines—**
F. W. Spacke Machine Co., Indianapolis, Ind.
- Bushings, Loose Pulley—**
Bancroft & Co., Philadelphia, Pa.
- Bushings, Loose Pulley, Oil-less—**
North American Metaline Co., Long Island City, N. Y.
- Bushings, Pulley—**
Bancroft & Co., Philadelphia, Pa.
Boston & Lockport Block Co., Boston.
Dodge Mfg. Co., Mishawaka, Ind.
Thomas Laughlin Co., Portland, Me.
- Bushings, Pulley Block Sheave—**
North American Metaline Co., Long Island City, N. Y.
- Butcher Cleavers, Knives, &c.—**
(See Cleavers, Knives, &c.)
- Butchers' Fixtures—**
(See Fixtures, Butcher.)
- Butchers' Machinery—**
Bernard Gloeckler Co., Pittsburgh, Pa.
- Butchers' Tinware—**
(See Tinware, Butchers'.)
- Butchers' Tools—**
(See Tools, Butchers'.)
- Butt and Rabbit Gauges—**
(See Gauges, Butt and Rabbit.)
- Butt Milling and Drilling Machines—**
(See Milling and Drilling Machines, Butt.)
- Butter Dishes—**
(See Dishes, Silver Plated.)
- Butterises, Blacksmiths—**
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Wells Bros. Co., Greenfield, Mass.**
- Button Back Machines—**
Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
E. B. Stimpson Co., 31 Spruce St., N. Y.
- Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.**
- Button Head Bolts—**
(See Bolts, Special.)
- Button Hole Cutters—**
(See Cutters, Button Hole.)
- Button Hooks—**
(See Hooks, Button.)
- Button Machinery—**
Ferracute Machine Co., Bridgeton, N. J.
Gould & Eberhardt, Newark, N. J.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Buttons, Bachelor—**
American Ring Co., Waterbury, Ct.
- Buttons, Door—**
Arcade Mfg. Co., Freeport, Ill.
Ney Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
W. & J. Tiebout, 118 Chambers St., N. Y.
- Buttons, Garment, Metal—**
Scovill Mfg. Co., Waterbury, Ct.

Buttons, Push—
W. R. Ostrander & Co., 22 Day St., N. Y.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

I. S. Spencer's Sons, Guilford, Ct.
Union Hardware Co., Torrington, Ct.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Butts and Hinges, Brass—
Delaware Marine Supply Mfg. Co., Wilmington, Del.
Plume & Atwood Mfg. Co., Waterbury, Ct.

Reading Hardware Co., Reading, Pa.
C. J. Root Co., Bristol, Ct.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Scrivell Mfg. Co., Waterbury, Ct.
Butts, Ball Bearing—
Stanley Works, New Britain, Ct.

Butts, Bronze—
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Butts, Cast Brass—
W. & J. Tiebout, 118 Chambers St., N. Y.

Butts, Cast Iron—
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Butts, Spring—
Bommer Bros., Brooklyn, N. Y.
Chicago Spring Butt Co., Chicago, Ill.
Shelby Spring Hinge Co., Shelby, O.

Butts, Wrought Steel—
Griffin Mfg. Co., Erie, Pa.
Lawrence Bros., Sterling, Ill.
McKinney Mfg. Co., Allegheny, Pa.
National Mfg. Co., Sterling, Ill.
Reading Hardware Co., Reading, Pa.
Stanley Works, New Britain, Ct.

Buzz Planers—
(See Planers, Buzz.)
Cabinet Clamps, &c.—
(See Clamps, &c.)

Cabinet Hardware—
American Ring Co., Waterbury, Ct.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Cabinet Hinges—
Griffin Mfg. Co., Erie, Pa.
National Mfg. Co., Sterling, Ill.
Reading Hardware Co., Reading, Pa.
Stanley Works, New Britain, Ct.

Cabinet Machinery—
Hobbs Mfg. Co., Worcester, Mass.

Cabinets, Blue Print—
A. G. Butler, 284-286 Pearl St., N. Y.

Cabinets, Electrotyping, &c.—
A. G. Butler, 284-286 Pearl St., New York.

Cabinets, Filing and Stationery—

W. J. Clark, Salem, O.

Cabinets, Hack Saw Blade—
Massachusetts Saw Works, Chicopee, Mass.

Cabinets, Hardware Store—
W. C. Heller & Co., Montpelier, O.

Cabinets, Screw and Bolt—
(See Cases, Screw and Bolt.)

Cabinets, Steel—
W. J. Clark, Salem, O.

Turrell's Equipment Co., Grand Rapids, Mich.

Cabinets, Tool—
(See Chests and Cabinets, Tool.)

Cable Chain—
(See Chain, Crane, Cable, &c.)

Cable, Hoisting—
Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Cable Machinery, Wire—
Farrel Foundry & Machine Co., Ansonia, Ct.

Thomas Prosser & Son, 26 Platt St., N. Y.

Cable Railroads—
(See Conveying Machinery.)

Cable Railway Machinery—
C. W. Hunt Co., West New Brighton, N. Y.

A. Leschen & Sons Rope Co., St. Louis.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Poole Engineering & Machine Co., Baltimore, Md.

Robins Conveying Belt Co., Park Row Bldg., New York.

Cables, Electrical—
(See Wires, Electrical.)

Cables, Insulated Copper—
Hazard Mfg. Co., Wilkes-Barre, Pa.

Cables, Lead Covered Paper Insulated—
Waterbury Co., 69 South St., New York.

Cables, Oil Well Drilling—
American Mfg. Co., 65 Wall St., New York.

Plymouth Cordage Co., North Plymouth, Mass.

Cables, Sub-Marine—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Cables, Varnished Cambric Insulated—
General Electric Co., Schenectady, N. Y.

Cableways, Marine—
Lidgerwood Mfg. Co., 96 Liberty St., New York.

Cableways, Wire—
(See Tramways, Wire Rope.)

Cadgers, Miners' Steel—
Gem Mfg. Co., Pittsburgh, Pa.

Cages, Bird and Animal—
Dufur & Co., Baltimore, Md.

Glen Mfg. Co., Ellwood City, Pa.

Andrew B. Hendrix Co., New Haven, Ct.

Cages, Cashier and Teller—
Bank—

Buffalo Wire Works Co., Inc., Buffalo, N. Y.

Caissons, Steel—
Petroleum Iron Works Co., Sharon, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Cake Baskets—
(See Baskets, Silver Plated.)

Cake Coolers—
(See Coolers.)

Cake Turners, &c.—
(See Turners, &c.)

Calculating Machines—
(See Adding, Computing and Reckoning Machines.)

Caldrons—
Stuart & Peterson Co., Burlington, N. J.

(See also Kettles, Sugar.)

Calendars, Silver Plated—
(See Desk Specialties.)

Calendering Machines, Paper-

Farrel Foundry & Mach. Co., Ansonia, Ct.

Calliper and Divider, Combined-

Brown & Sharpe Mfg. Co., Providence, R. I.

Callipers-

Ballings & Spencer Co., Hartford, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Krauter & Co., Inc., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

L. S. Starrett Co., Athol, Mass.

Callipers, Decimal Log-

Humphrey Machine Co., Keene, N. H.

Callipers, Gear Tooth-

Brown & Sharpe Mfg. Co., Providence, R. I.

Callipers, Log-

Lufkin Rule Co., Saginaw, Mich.

Callipers, Micrometer-

Brown & Sharpe Mfg. Co., Providence, R. I.

Schuchardt & Schutte, 136 Liberty St., New York.

J. T. Slocumb Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

Callipers, Pocket Slide-

L. S. Starrett Co., Athol, Mass.

Callipers, Vernier-

Brown & Sharpe Mfg. Co., Providence, R. I.

Schuchardt & Schutte, 136 Liberty St., New York.

Calking Material-

Estes Mills, Fall River, Mass.

Calking Irons, Mallets-

(See Irons, Mallets.)

Calking Tools, Pneumatic Boiler-

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Calks, Boot-

Lufkin Rule Co., Saginaw, Mich.

Louis Sacks, Newark, N. J.
North & Pfeiffer Mfg. Co., New Britain, Ct.**Calks, Horseshoe-**

American Horse Shoe Co., Phillipsburg, N. J.

American Steel & Wire Co., The Rookery, Chicago, Ill.

P. F. Burke, South Boston, Mass.

Kilborn & Bishop Co., New Haven, Ct.
Rhode Island Perkins Horseshoe Co., Providence, R. I.**Call Bells-**

(See Bells, Tea and Call.)

Calls, Dog-

Waterbury Brass Co., Waterbury, Ct.

Calorimeters-

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Eimer & Amend, 205 Third Ave., N. Y.
(See Cutting Attachments, Cam.)**Cam Cutting Attachments-**

(See Cutting Attachments, Cam.)

Cam Cutting Machines-

Becker-Breard Milling Machine Co., Hyde Park, Mass.

Niles-Rement-Pond Co., 111 Broadway, New York.

Cambering Machines, for Rails-

United Engineering & Foundry Co., Pittsburgh, Pa.

Camp Stools-

(See Stools, Camp.)

Can Faucets, Jackets-

(See Faucets, Jackets.)

Can Machinery, Automatic-E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., Hastings, Mich.**Can Makers' Machinery-**Adriance Machine Works, Brooklyn, N. Y.
Blake & Johnson Co., Waterbury, Ct.E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., Hastings, Mich.Ferracute Machine Co., Bridgeton, N. J.
Jeffrey Mfg. Co., Columbus, O.Chas. Leffler & Co., Brooklyn, N. Y.
Niagara Machine & Tool Works, Buffalo.

Fred J. Swaine Co., St. Louis, Mo.

Can Nozzles, Openers.

(See Nozzles, Openers, Screws.)

Candelabra-

(See 'andlesticks and Candelabra.)

Candle Wicking-

(See Wicks, Candle.)

Candlesticks-

American Ring Co., Waterbury, Ct.

Candlesticks and Candelabra-Goodwin & Kintz Co., Winsted, Ct.
International Silver Co., Meriden, Ct.Candlesticks, Miners'-
Ludlow-Saylor Wire Co., St. Louis, Mo.

Tower & Lyon Co., 95 Chambers St., New York.

Candy Pans, Scales, Scoops-

(See Pans, Scales, Scoops.)

Cane Knives-

(See Knives, Cane.)

Canners, Fruit-

Gem Mfg. Co., Boston, Mass.

Cannons, Yacht-

Barney & Berry, Springfield, Mass.

Canoes-

(See Boats and Canoes.)

Canopies and Canopy Structures-

I. E. Palmer, Middletown, Ct.

Canopies, Iron-

(See Iron Work, Builders.)

Canopy Nettings-

(See Nettings, Canopy.)

Cans, Ash and Garbage-

Arrow Can Co., 35 Warren St., N. Y.

W. J. Clark Co., Salem, O.

Gem Mfg. Co., Boston, Mass.

Steel Basket Co., Cedar Rapids, Ia.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.**Cans, Factory-**

Steel Basket Co., Cedar Rapids, Ia.

Cans, Galvanized Iron-

Steel Basket Co., Cedar Rapids, Ia.

Cans, Ice Cream-

Stuart & Peterson Co., Burlington, N. J.

Cans, Ice Cream Packing-

Sturges & Burn Mfg. Co., Chicago, Ill.

Cans, Ice, Galvanized Iron-Wm. B. Sciffe & Sons Co., Pittsburgh, Pa.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

Cans, Milk—
Gem Mfg. Co., Boston, Mass.
Lalance & Grosjean Mfg. Co., 299 Broadway, New York.
Charles Miller & Son Co., Utica, N. Y.
Sturges & Burn Mfg. Co., Chicago, Ill.

Cans, Oil—
American Tube & Stamping Co., Bridgeport, Ct.
Arrow Can Co., 35 Warren St., N. Y.
Delphos Mfg. Co., Delphos, O.
Johnson Mfg. Co., Urbana, O.

Cans, Oily Waste—
Arrow Can Co., 35 Warren St., N. Y.
W. J. Clark Co., Salem, O.
Delphos Mfg. Co., Delphos, O.
Gem Mfg. Co., Boston, Mass.
Steel Basket Co., Cedar Rapids, Ia.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

Cans, Paint and Varnish—
American Tube & Stamping Co., Bridgeport, Conn.

Cans, Roving—
Gem Mfg. Co., Boston, Mass.

Cans, Refuse—
Steel Basket Co., Cedar Rapids, Ia.

Cans, Squirr—
Johnson Mfg. Co., Urbana, O.

Cans, Steel, Perforated Bottom—
Steel Basket Co., Cedar Rapids, Ia.

Cans, Tin—
Eastern Machine & Stamping Co., Providence, R. I.

Cans, Train Water—
Johnson Mfg. Co., Urbana, O.

Cans, Varnish—
Commercial Can Co., Chicago, Ill.

Cant Hooks—
(See Hooks, Cant.)

Cap Screws—
(See Screws, Cap and Set.)

Cape Chisels—
(See Chisels, Cape.)

Capitals—
(See Architectural Sheet Metal Work.)

Caps and Bases, Post—
W. J. Clark Co., Salem, O.

Caps and Ventilators—
W. & J. Tiebout, 118 Chambers St., N. Y.

Caps, Chimney—
S. Cheney & Son, Manlius, N. Y.

Caps, Door and Window, Metal—

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

G. Drouve Co., Bridgeport, Ct.

Eller Mfg. Co., Canton, O.

Niles Corrugating Co., Niles, O.

Caps, Hip, Pilaster, &c.—
(See Architectural Sheet Metal Work.)

Caps, Hose—
(See Hose Attachments.)

Caps, Percussion—
Union Metallic Cartridge Co., Bridgeport, Ct.

Caps, Post, Fence—
M. Lanz & Son, Pittsburgh, Pa.

National Iron & Wire Co., Cleveland, O.

Van Dorn Iron Works Co., Cleveland, O.

Car Axles, Bearings, &c.—
(See Axles, Bearings, &c.)

Car Coupling Pins—
(See Pins, Car Coupling.)

Car Door Plates—
(See Plates, Car Door.)

Car Lighting—
(See Lighting, Car, Electric, from Axle.)

Car Movers—
(See Pushers, Car.)

Car Pushers—
(See Pushers, Car.)

Car Seal Machinery—
(See Seals, Machinery for Making Car.)

Car Shop Tools—
Badger State Machine Co., Janesville, Wis.

Chambersburg Engineering Co., Chambersburg, Pa.

Fox Machine Co., Grand Rapids, Mich.

Hilles & Jones Co., Wilmington, Del.

Niles-Bement-Pond Co., 111 Broadway, New York.

Geo. A. Ohl & Co., Newark, N. J.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Williams, White & Co., Moline, Ill.

MERCHANTS.

General Supply-Iron-Steel & Rail Co., Cincinnati, O.

Hill, Clarke & Co., Boston, Mass.

Machinists' Supply Co., 16-18 So. Canal St., Chicago, Ill.

Marshall & Husehart Machinery Co., 62 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

Joseph T. Ryerson & Son, 15-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Car Shop Wood Working Machinery—
Badger State Machine Co., Janesville, Wis.

Fox Machine Co., Grand Rapids, Mich.

Oliver Machinery Co., Grand Rapids, Mich.

Car Starters—
(See Pushers, Car.)

Car Window Locks—
(See Locks, Car Window.)

Carbide of Silicon—
(See Silicon, Carbide of.)

Carbines—
(See Rifles, Carbines, &c.)

Carbolynt, for Sharpening Files—
American File Sharpener Co., 296 Broadway, New York.

Carbon Tongues—
(See Tongues, Carbon.)

Carborundum Cloth—
Carborundum Co., Niagara Falls, N. Y.

Carborundum Grains—
Carborundum Co., Niagara Falls, N. Y.

Carbureters, Engine—
Chicago Flexible Shaft Co., La Salle Ave. and Ontario St., Chicago, Ill.

Card Cases, Trays, &c.—
(See Cases, Trays, &c.)

Card Frames, Holders—

(See Frames, Holders.)

Cards, Cotton, Horse, Wool, &c.—

John H. Graham & Co., 113 Chambers St., New York.

Cards, File Cleaning—

Galton Mfg. Co., Cleveland, O.

Nicholson File Co., Providence, R. I.

Carpenter Shop Machinery—Fox Machine Co., Grand Rapids, Mich.
Oliver Machinery Co., Grand Rapids, Mich.**Carpenters' Clamps, Slicks—**

(See Clamps, Slicks.)

Carpenters' Pincers—

(See Pincers.)

Carpet Shears—

(See Shears, Upholsterers' and Carpet.)

Carriage and Wagon Hardware—

C. C. Bradley & Son, Inc., Syracuse, N. Y.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Detroit Forging Co., Detroit, Mich.

Richard Eccles Co., Auburn, N. Y.

Kilbourn & Bishop Co., New Haven, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

M. Seward & Son Co., New Haven, Ct.

Strieby & Foot Co., Newark, N. J.

Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

Carriage Axles, Bolts, &c.—

(See Axles, Bolts, &c.)

Carriage Hardware—

(See Carriage Reaches and Hardware.)

Carriage Hubs—

(See Hubs, Wire Wheel, Vehicle.)

Carriage Reaches and Hardware—

Boston Pressed Metal Co., Worcester, Mass.

Carriages, Gun—

Bethlehem Steel Co., So. Bethlehem, Pa.

Morgan Engineering Co., Alliance, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Carriages, Trolley—

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Carriers, Baby—

Simmons Hardware Co., St. Louis, Mo.

Carriers, Cash and Package—

Globe Machine & Stamping Co., Cleveland, O.

Lamson Consolidated S. S. Co., Boston, Mass.

Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.

Carriers, Endless Apron—

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Link-Belt Co., Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.

Carriers, Hand Hoist—

F. E. Myers & Bros., Ashland, O.

Niles-Reynold-Pond Co., 111 Broadway, New York.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Ney Mfg. Co., Canton, O.

Yale & Towne Mfg. Co., 9 Murray St.,

New York.

Carriers, Hay Fork—

(See Haying Tools.)

Carriers, Message—

Lamson Consolidated S. S. Co., Boston,

Mass.

Carriers, Milk Bottle—

Estey Wire Wks. Co., 59 Fulton St., N. Y.

Parker Wire Goods Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Com-

merce St., Philadelphia, Pa.

Wire Goods Co., Worcester, Mass.

Carriers, Oil—

Gem Mfg. Co., Pittsburgh, Pa.

Carriers, Pneumatic—

Lamson Consolidated S. S. Co., Boston,

Mass.

Carriers, Stove—

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Carriers, Trunk—

Boston & Lockport Block Co., Boston.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Ney Mfg. Co., Canton, O.

Carriers, Tumbler, Silver**Plated—**

International Silver Co., Meriden, Ct.

Carrying Track, Overhead—

(See Track, Overhead Carrying.)

Cars, Brick—

Atlas Car & Mfg. Co., Cleveland, O.

Chase Foundry & Mfg. Co., Columbus, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Arthur Koppel Co., Pittsburgh, Pa.

Sheffield Car Co., Three Rivers, Mich.

Ernst Wiener Co., Broad and Beaver

Sts., New York.

Youngtown Car Mfg. Co., Youngstown, O.

Cars, Cane—

Kilbourne & Jacobs Mfg. Co., Colum-

bus, O.

Cars, Cement Block—

Chase Foundry & Mfg. Co., Columbus, O.

Arthur Koppel Co., Pittsburgh, Pa.

Ernst Wiener Co., Broad and Beaver

Sts., New York.

Cars, Coal—

Arthur Koppel Co., Pittsburgh, Pa.

Ernst Wiener Co., Broad and Beaver

Sts., New York.

Cars, Coal, Hotel, Kitchen—

Atlas Car & Mfg. Co., Cleveland, O.

Arthur Koppel Co., Pittsburgh, Pa.

Cars, Coal Mine, Pitt. &c.—

Atlas Car & Mfg. Co., Cleveland, O.

F. H. Evans, Brooklyn, N. Y.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Arthur Koppel Co., Pittsburgh, Pa.

Link-Belt Co., Philadelphia, Pa.

Sheffield Car Co., Three Rivers, Mich.

Wellman-Seaver-Morgan Co., Cleveland, O.

Ernst Wiener Co., Broad and Beaver

Sts., New York.

Youngtown Car Mfg. Co., Youngstown, O.

MERCHANTS.

Carlin Machinery & Supply Co., Inc.,

Allegheny, Pa.

General Supply-Iron-Steel & Rail Co.,

Cincinnati, O.

Southern Iron & Equipment Co., Atlanta,

Ga.

Wonham & Magor, 29 Broadway, N. Y.
Walter A. Zelnicker Supply Co., St. Louis.

Cars, Coke—
Atlas Car & Mfg. Co., Cleveland, O.
Byram & Co., Detroit, Mich.
Chase Foundry & Mfg. Co., Columbus, O.
Arthur Koppel Co., Pittsburgh, Pa.
Ernst Wiener Co., Broad and Beaver
Sts., New York.

Cars, Core Oven—
Atlas Car & Mfg. Co., Cleveland, O.
Byram & Co., Detroit, Mich.
Chase Foundry & Mfg. Co., Columbus, O.
C. W. Hunt Co., West New Brighton, N. Y.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Arthur Koppel Co., Pittsburgh, Pa.
Osborn Mfg. Co., Cleveland, O.
Ernst Wiener Co., Broad and Beaver
Sts., New York.

Cars, Core Oven—
Youngstown Car Mfg. Co., Youngstown, O.
MERCHANTS.
General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.
S. Obermayer Co., Cincinnati, O.

Cars, Drying—
Chase Foundry & Mfg. Co., Columbus, O.

Cars, Dump—
Atlas Car & Mfg. Co., Cleveland, O.
Byram & Co., Detroit, Mich.
Thos. Carlin's Sons, Allegheny, Pa.
Chase Foundry & Mfg. Co., Columbus, O.
C. W. Hunt Co., West New Brighton, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Arthur Koppel Co., Pittsburgh, Pa.
Link-Belt Co., Philadelphia, Pa.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.
Sheffield Car Co., Three Rivers, Mich.
Ernst Wiener Co., Broad and Beaver
Sts., New York.
Youngstown Car Mfg. Co., Youngstown, O.

MERCHANTS.
Thos. P. Conard & Co., Harrison Bldg.,
Philadelphia, Pa.
General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.
Hyde Bros. & Co., Pittsburgh, Pa.
Southern Iron & Equipment Co., Atlanta,
Ga.

Wonham & Magor, 29 Broadway, N. Y.
Walter A. Zelnicker Supply Co., St. Louis.

Cars, Electric—
Atlas Car & Mfg. Co., Cleveland, O.

Cars, Elevator—
Buffalo Wire Works Co., Buffalo, N. Y.
Dufur & Co., Baltimore, Md.
Glen Mfg. Co., Ellwood City, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
W. S. Tyler Co., Cleveland, O.
Wright Wire Co., Worcester, Mass.

Cars, Foundry—
Atlas Car & Mfg. Co., Cleveland, O.
Byram & Co., Detroit, Mich.
Chase Foundry & Mfg. Co., Columbus, O.
C. W. Hunt Co., West New Brighton,
N. Y.

Arthur Koppel Co., Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.
Osborn Mfg. Co., Cleveland, O.
Sheffield Car Co., Three Rivers, Mich.
Ernst Wiener Co., Broad and Beaver
Sts., New York.

Cars, Freight—
Arthur Koppel Co., Pittsburgh, Pa.

Ernst Wiener Co., Broad and Beaver
Sts., New York.

MERCHANTS.
Barclay M. Everson, Pittsburgh, Pa.
General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.
Hyde Bros. & Co., Pittsburgh, Pa.
Southern Iron & Equipment Co., Atlanta,
Ga.

Walter A. Zelnicker Supply Co., St. Louis.
Cars, Gasoline, Interurban—
Sheffield Car Co., Three Rivers, Mich.

Cars, Gasoline Motor—
Sheffield Car Co., Three Rivers, Mich.

**Cars, Industrial and Narrow
Gauge Railway—**
C. W. Hunt Co., West New Brighton,
N. Y.

Arthur Koppel Co., Pittsburgh, Pa.
Link-Belt Co., Philadelphia, Pa.
Youngstown Car Mfg. Co., Youngstown, O.

Cars, Ingot Mold—
Pennsylvania Engineering Works, New
Castle, Pa.

Cars, Logging—
Atlas Car & Mfg. Co., Cleveland, O.
Arthur Koppel Co., Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.
Sheffield Car Co., Three Rivers, Mich.

Cars, Motor Railway—
Sheffield Car Co., Three Rivers, Mich.

Cars, Odometer—
Sheffield Car Co., Three Rivers, Mich.

Cars, Open Hearth Chargin—
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

Cars, Ore—
Chase Foundry & Mfg. Co., Columbus, O.
Youngstown Car Mfg. Co., Youngstown, O.

Cars, Plantation—
Atlas Car & Mfg. Co., Cleveland, O.
Arthur Koppel Co., Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Sheffield Car Co., Three Rivers, Mich.
Ernst Wiener Co., Broad and Beaver
Sts., New York.

Cars, Platform—
Atlas Car & Mfg. Co., Cleveland, O.
Arthur Koppel Co., Pittsburgh, Pa.
Youngstown Car Mfg. Co., Youngstown, O.

Cars, Pulp—
Sheffield Car Co., Three Rivers, Mich.

Cars, Push—
Chase Foundry & Mfg. Co., Columbus, O.
C. W. Hunt Co., West New Brighton, N. Y.
Sheffield Car Co., Three Rivers, Mich.

Cars, Railroad—
Atlas Car & Mfg. Co., Cleveland, O.
Arthur Koppel Co., Pittsburgh, Pa.
Ernst Wiener Co., Broad and Beaver
Sts., New York.

MERCHANTS.
Thomas P. Conard & Co., 119 S. 4th St.,
Philadelphia, Pa.
Dallett & Co., Harrison Bldg., Philadel-
phia, Pa.
General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.
Hyde Bros. & Co., Pittsburgh, Pa.
Ernest Law & Co., 15th & Market Sts.,
Philadelphia, Pa.
Pierson & Co., 29 Broadway, N. Y.

Southern Iron & Equipment Co., Atlanta, Ga.
Wonham & Magor, 29 Broadway, N. Y.
Walter A. Zelnicker Supply Co., St. Louis.

Cars, Railroad Hand—
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Arthur Koppel Co., Pittsburgh, Pa.
 Sheffield Car Co., Three Rivers, Mich.
 Ernst Wiener Co., Broad and Beaver
 Sts., New York.

Cars, Rolling Mill—
 Atlas Car & Mfg. Co., Cleveland, O.
 Chase Foundry & Mfg. Co., Columbus, O.
 Arthur Koppel Co., Pittsburgh, Pa.
 Arthur Koppel, 66-68 Broad St., N. Y.
 Pennsylvania Engineering Works, New
 Castle, Pa.

Sheffield Car Co., Three Rivers, Mich.
 Youngstown Car Mfg. Co., Youngstown, O.

Cars, Skip—
 Atlas Car & Mfg. Co., Cleveland, O.
 Brown Hoisting Machinery Co., Cleveland,
 Chase Foundry & Mfg. Co., Columbus, O.
 Arthur Koppel Co., Pittsburgh, Pa.
 Link-Belt Co., Philadelphia, Pa.
 Pennsylvania Engineering Works, New
 Castle, Pa.

Sheffield Car Co., Three Rivers, Mich.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 Ernst Wiener Co., Broad and Beaver
 Sts., New York.

Cars, Steel—
 Atlas Car & Mfg. Co., Cleveland, O.
 Arthur Koppel Co., Pittsburgh, Pa.
 Sheffield Car Co., Three Rivers, Mich.
 Wellman-Seaver-Morgan Co., Cleveland,
 Ohio.

Ernst Wiener Co., Broad and Beaver
 Sts., New York.
 Youngstown Car Mfg. Co., Youngstown, O.

MERCHANTS.
 General-Supply-Iron-Steel & Rail Co.,
 Cincinnati, O.

Wonham & Magor, 29 Broadway, N. Y.
 Walter A. Zelnicker Supply Co., St. Louis.

Cars, Steel Mine—
 Arthur Koppel Co., Pittsburgh, Pa.
 Sheffield Car Co., Three Rivers, Mich.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 Youngstown Car Mfg. Co., Youngstown, O.

Cars, Stone—
 Chase Foundry & Mfg. Co., Columbus, O.

Cars, Sugar Cane—
 Atlas Car & Mfg. Co., Cleveland, O.
 Arthur Koppel Co., Pittsburgh, Pa.
 Sheffield Car Co., Three Rivers, Mich.
 Ernst Wiener Co., Broad and Beaver
 Sts., New York.

Cars, Tank—
 Atlas Car & Mfg. Co., Cleveland, O.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
 Sheffield Car Co., Three Rivers, Mich.
 Tudor Boiler Mfg. Co., Cincinnati, O.

Cars, Track Laying—
 Sheffield Car Co., Three Rivers, Mich.

Cars, Transfer—
 Byram & Co., Detroit, Mich.
 Chase Foundry & Mfg. Co., Columbus, O.
 Arthur Koppel Co., Pittsburgh, Pa.

Cars, Velocipede—
 Arthur Koppel Co., Pittsburgh, Pa.
 Sheffield Car Co., Three Rivers, Mich.

Cars, Wagon Transfer—
 Sheffield Car Co., Three Rivers, Mich.

Cars, Water and Acid Bosh—
 Atlas Car & Mfg. Co., Cleveland, O.

**Cars, Weed Cutting, Rail-
 road—**
 Sheffield Car Co., Three Rivers, Mich.

Cars, Wire—
 Chase Foundry & Mfg. Co., Columbus, O.

Cartridge Machines—
 Blake & Johnson Co., Waterbury, Ct.
 Ferracute Machine Co., Bridgeport, N. J.
 E. J. Manville Mach. Co., Waterbury, Ct.
 Waterbury Farrel Foundry & Machine
 Co., Waterbury, Ct.

Cartridges—
 Union Metallic Cartridge Co., Bridge-
 port, Ct.

Carts, Barrel—
 Bateman Mfg. Co., Grenloch, N. J.

Carts, Crushed Ice—
 Sheffield Car Co., Three Rivers, Mich.

Carts, Dump—
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

Carts, Hose—
 Goulds Mfg. Co., Seneca Falls, N. Y.

Carts, Lumber—
 Kilbourne & Jacobs Mfg. Co., Columbus, O.

Carts, Push—
 Bateman Mfg. Co., Grenloch, N. J.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Arthur Koppel Co., Pittsburgh, Pa.
 Syracuse Chilled Plow Co., Syracuse,
 N. Y.

R. W. Whitehurst Co., Norfolk, Va.

Carts, Steel—
 F. H. Evans, Brooklyn, N. Y.

**Carvers, Assistants, Forks,
 Holders, &c.—**

Landers, Frary & Clark, New Britain, Ct.

Carving Tools—
 Buck Bros., Millbury, Mass.

Millers Falls Co., 28 Warren St., N. Y.

**Casement Adjusters, Fas-
 teners—**

(See Adjusters, Fasteners.)

**Cases, Card, Silver and Sil-
 ver Plated—**

International Silver Co., Meriden, Ct.

**Cases, Document and File,
 Steel—**

Van Dorn Iron Works Co., Cleveland, O.

Cases, Drill—
 Cleveland Twist Drill Co., Cleveland, O.

**Cases, Induction Coil, to
 Order—**

Union Hardware Co., Torrington, Ct.

**Cases, Match, Silver and
 Silver Plated—**

International Silver Co., Meriden, Ct.

Cases, Packing—
 (See Boxes and Cases, Packing.)

Cases, Railroad Ticket—
 American Railway Supply Co., 24 Park
 Place, New York.

Cases, Screw and Bolt—
 W. C. Heller & Co., Montpelier, O.

Cases, Seed—
 W. C. Heller & Co., Montpelier, O.

**Cash Recorders, Auto-
 graphic—**

(See Recorders, Cash, Autographic.)

Casing, Oil Well—
 La Belle Iron Works, Steubenville, O.

Casing, Tube Co., Pittsburgh, Pa.

Casings, Elevator Steel—
 W. J. Clark Co., Salem, O.

Caskets, Jewel, Silver and Silver Plated—
(See Jewel Caskets.)

Casks, Shipping—
W. J. Clark Co., Salem, O.

Cast Iron Columns—
(See Iron Work, Builders, &c.)

Cast Iron Enamels—
(See Enamels, Acid Proof and Cast Iron.)

Cast Washers—
(See Washers, Cast.)

Casters, Ball and Roller Bearing—

Acme Ball-Bearing Sales Co., 56 Warren St., New York.

George P. Clark Co., Windsor Locks, Ct. Excelsior Tool & Machine Co., E. St. Louis, Ill.

Otto Konigslof Mfg. Co., Cleveland, O. M. B. Schenck Co., Meriden, Ct.

Smith & Hemenway Co., 108-110 Duane St., New York.

Universal Caster & Foundry Co., 1170 Broadway, New York.

Casters, Bed, Plate, &c.—

Geo. P. Clark Co., Windsor Locks, Ct. Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa. M. B. Schenck Co., Meriden, Ct.

Smith & Hemenway Co., 108-110 Duane St., New York.

Universal Caster & Foundry Co., 1170 Broadway, New York.

Wrightsville Hardware Co., Wrightsville, Pa.

Casters, Dinner, Pickle, Salad, &c., Silver and Silver Plated—

International Silver Co., Meriden, Ct.

Casters, Furniture—

Universal Caster & Foundry Co., 1170 Broadway, New York.

Casters, Metal Bed—

Universal Caster & Foundry Co., 1170 Broadway, New York.

Casters, Piano—
(See Casters, Bed, Plate, &c.)

Casters, Rubber Wheel—

Geo. P. Clark Co., Windsor Locks, Ct. Elastic Tip Co., Boston, Mass.

Casters, Stove Leg—

M. B. Schenck Co., Meriden, Ct.

Casters, Truck—

Geo. P. Clark Co., Windsor Locks, Ct. Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa. M. B. Schenck Co., Meriden, Ct.

Universal Caster & Foundry Co., 1170 Broadway, New York.

Castings, Dip, Asphalt—

National Roofing Co., Tonawanda, N. Y.

Castings, Machines, Blast Furnace—

Arthur G. McKee, Cleveland, O.

Castings, Agricultural—

Columbus Malleable Casting Co., Columbus, O.

Northern Malleable Iron Co., St. Paul, Minn.

Castings, Air Furnace—

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Keystone Steel Casting Co., Chester, Pa.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Castings, Aluminum—

Aluminum Co. of America, Pittsburgh, Pa.

American Ring Co., Waterbury, Ct.

Bancroft & Co., Philadelphia, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.

J. B. Chapman & Co., Springfield, Mass.

Chicago Hardware Foundry Co., North Chicago, Ill.

Clum & Atkinson, Rochester, N. Y.

Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.

Helwig Mfg. Co., St. Paul, Minn.

Hercules Brass & Bell Foundry, Cincinnati, O.

Homer F. Livermore, Boston, Mass.

Lunkenheimer Co., Cincinnati, O.

Ohio Brass Co., Mansfield, O.

Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Sheffield Car Co., Three Rivers, Mich.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

York Pattern Works, York, Pa.

Zimmerman Steel Co., Lone Tree, Ia.

Castings, Architectural—

Bethlehem Steel Co., So. Bethlehem, Pa.

Browning Engineering Co., Cleveland, O.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Chicago Hardware Foundry Co., North Chicago, Ill.

C. A. Dreisbach Foundry & Machine Co., New Haven, Ct.

Keystone Steel Casting Co., Chester, Pa.

Walker Foundry Co., Erie, Pa.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

West Side Foundry Co., Troy, N. Y.

Castings, Automobile—

Acme Steel & Malleable Iron Works, Buffalo, N. Y.

Chicago Steel Foundry Co., The Rookery, Chicago, Ill.

Crucible Steel Casting Co., Lansdowne, Pa.

Empire Foundry Co., New Brunswick, N. J.

Hercules Brass & Bell Foundry, Cincinnati, O.

Keystone Steel Castings Co., Chester, Pa.

Lebanon Steel Casting Co., Lebanon, Pa.

Homer F. Livermore, Boston, Mass.

Morse Iron Works, Erie, Pa.

Northern Malleable Iron Co., St. Paul, Minn.

Ohio Brass Co., Mansfield, O.

Phosphor-Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Thomas Prosser & Son, 28 Platt St., N. Y.

Susquehanna Casting Co., Wrightsville, Pa.

Walker Foundry Co., Erie, Pa.

- Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
Castings, Automobile, Gray Iron—
 Empire Foundry Co., New Brunswick, N. J.
Castings, Bell Metal—
 Hercules Brass & Bell Foundry, Cincinnati, O.
 Ohio Brass Co., Mansfield, O.
Castings, Bench Leg—
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
 Keystone Steel Casting Co., Chester, Pa.
 Morse Iron Works, Erie, Pa.
 Walker Foundry Co., Erie, Pa.
 West Side Foundry Co., Troy, N. Y.
Castings, Bicycle—
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
 Keystone Steel Castings Co., Chester, Pa.
Castings, Blocking Die—
 Crucible Steel Casting Co., Lansdowne, Pa.
Castings, Boiler, Steam—
 Federal Steel Foundry Co., Chester, Pa.
Castings, Brass—
 American Gas Machine Co., Albert Lea, Minn.
 American Ring Co., Waterbury, Ct.
 American Tool & Machine Co., Boston.
 Bancroft & Co., Philadelphia, Pa.
 Barnes Mfg. Co., Mansfield, O.
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.
 J. B. Chapman & Co., Springfield, Mass.
 Chicago Hardware Foundry Co., North Chicago, Ill.
 Clark Novelty Co., Rochester, N. Y.
 Clum & Atkinson, Rochester, N. Y.
 Delaware Marine Supply Mfg. Co., Wilmington, Del.
 Julian D'Este Co., Boston, Mass.
 Erie Stamping & Mfg. Co., Erie, Pa.
 Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
 Fawcus Machine Co., Pittsburgh, Pa.
 Heindel Mfg. Co., Hanover, Pa.
 Hubley Mfg. Co., Lancaster, Pa.
 Humphreys Mfg. Co., Mansfield, O.
 H. B. Ives Co., New Haven, Ct.
 Thomas Laughlin Co., Portland, Me.
 Homer F. Livermore, Boston, Mass.
 Lunkenheimer Co., Cincinnati, O.
 Lynchburg Foundry Co., Lynchburg, Va.
 McClave-Brooks Co., Scranton, Pa.
 Mackintosh, Hemphill & Co., Pittsburgh, Pa.
 Mesta Machine Co., Pittsburgh, Pa.
 Franklin Moore Co., Winsted, Ct.
 Morgan Engineering Co., Alliance, O.
 National Brake & Electric Co., Milwaukee, Wis.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Nolte Brass Co., Springfield, O.
 North Bros. Mfg. Co., Philadelphia, Pa.
 Ohio Brass Co., Mansfield, O.
 Henry Perkins Co., Bridgewater, Mass.
- Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.
 Poole Engineering & Machine Co., Baltimore, Md.
 Paul S. Reeves & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
 J. J. Ryan & Co., 63 W. Monroe St., Chicago, Ill.
 Sheffield Car Co., Three Rivers, Mich.
 I. S. Spencer's Sons, Guilford, Ct.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Whitlock Coil Pipe Co., Hartford, Ct.
 Wilcox, Crittenden & Co., Inc., Middletown, Ct.
 Walter W. Woodruff & Sons Co., Mount Carmel, Ct.
 York Pattern Works, York, Pa.
 Zimmerman Steel Co., Lone Tree, Ia.
- Castings, Bronze—**
 Bancroft & Co., Philadelphia, Pa.
 Best Mfg. Co., Pittsburgh, Pa.
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.
 J. B. Chapman & Co., Springfield, Mass.
 Chicago Hardware Foundry Co., North Chicago, Ill.
 Clum & Atkinson, Rochester, N. Y.
 Julian D'Este Co., Boston, Mass.
 Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
 Fawcus Machine Co., Pittsburgh, Pa.
 Heindel Mfg. Co., Hanover, Pa.
 Hubley Mfg. Co., Lancaster, Pa.
 H. B. Ives Co., New Haven, Ct.
 Homer F. Livermore, Boston, Mass.
 Lunkenheimer Company, Cincinnati, O.
 Mackintosh, Hemphill & Co., Pittsburgh, Pa.
 Morgan Engineering Co., Alliance, O.
 Nolte Brass Co., Springfield, O.
 Ohio Brass Co., Mansfield, O.
 Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
 Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.
 Paul S. Reeves & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
 I. S. Spencer's Sons, Guilford, Ct.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 York Pattern Works, York, Pa.
 Zimmerman Steel Co., Lone Tree, Ia.
- Castings, Car Coupler—**
 Northern Malleable Iron Co., St. Paul, Minn.
- Castings, Cement Mill—**
 Buffalo Foundry & Machine Co., Buffalo, N. Y.
- Castings, Charcoal Gun Iron—**
 Poole Engineering & Machine Co., Baltimore, Md.
- Castings, Chemical Works—**
 Buffalo Foundry & Machine Co., Buffalo, N. Y.
 Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.
 Federal Steel Foundry Co., Chester, Pa.

Keystone Steel Casting Co., Chester, Pa.
Lunkenheimer Co., Cincinnati, O.
National Foundry Co., Erie, Pa.
Ohio Brass Co., Mansfield, O.
Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia, Pa.
R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.

Castings, Chrome Steel—
Chrome Steel Works, Chrome, N. J.
Crucible Steel Casting Co., Lansdowne,
Pa.
Keystone Steel Casting Co., Chester, Pa.
Thomas Prosser & Son, 26 Platt St., N.Y.
Taylor Iron & Steel Co., High Bridge,
N. J.

Castings, Composition—
J. B. Chapman & Co., Springfield,
Mass.
Julian D'Este Co., Boston, Mass.
H. B. Ives Co., New Haven, Ct.
Ohio Brass Co., Mansfield, O.
Henry Perkins Co., Bridgewater, Mass.
Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
I. S. Spencer's Sons, Guilford, Ct.
Veeder Mfg. Co., Hartford, Ct.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.
Walter W. Woodruff & Sons Co., Mount
Carmel, Ct.

Castings, Connecting Rod—
Keystone Steel Castings Co., Chester, Pa.

Castings, Copper—
Bancroft & Co., Philadelphia, Pa.
Bridgeport Deoxidized Bronze & Metal
Co., Bridgeport, Ct.
J. B. Chapman & Co., Springfield,
Mass.
Chicago Hardware Foundry Co., North
Chicago, Ill.
Eynon-Evans Mfg. Co., 1507 Clearfield St.,
Philadelphia, Pa.
Fawcus Machine Co., Pittsburgh, Pa.
Hercules Brass & Bell Foundry, Cincin-
nati, O.
Nolte Brass Co., Springfield, O.
Ohio Brass Co., Mansfield, O.
Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Castings, Crankshaft—
Keystone Steel Castings Co., Chester, Pa.

Castings, Crucible Steel—
Bancroft & Co., Philadelphia, Pa.
Buffalo Crucible Casting Co., Buffalo,
N. Y.
Chicago Steel Foundry Co., Chicago, Ill.
Crucible Steel Casting Co., Lansdowne,
Pa.
Fawcus Machine Co., Pittsburgh, Pa.
Keystone Steel Casting Co., Chester, Pa.
Lebanon Steel Casting Co., Lebanon, Pa.
Lunkenheimer Co., Cincinnati, O.
New Process Steel Co., Marshall, Mich.
Thomas Prosser & Son, 26 Platt St., N.Y.
Western Malleable Steel Co., Detroit,
Mich.

**Castings, Die Molded, Pre-
cision—**
E. H. Van Wagner Mfg. Co., Syracuse,
N. Y.
Veeder Mfg. Co., Hartford, Ct.

**Castings, Dredging Machin-
ery—**

Federal Steel Foundry Co., Chester, Pa.

**Castings, Dynamo and
Motor—**

Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
Crucible Steel Casting Co., Lansdowne,
Pa.
Lebanon Steel Casting Co., Lebanon, Pa.
Morse Iron Works, Erie, Pa.
National Foundry Co., Erie, Pa.
Geo. H. Smith Steel Casting Co., Mil-
waukee, Wis.
Walker Foundry Co., Erie, Pa.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Castings, Engine, Marine—
Federal Steel Foundry Co., Chester, Pa.

**Castings, Engine, Station-
ary—**

Federal Steel Foundry Co., Chester, Pa.
Castings, Engine Model—
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
Crucible Steel Casting Co., Lansdowne,
Pa.

Castings, Finished—
Allentown Rolling Mills, Allentown, Pa.
American Bridge Co. of New York, 42
Broadway, New York.

Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.
Bethlehem Steel Co., So. Bethlehem, Pa.
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
Crucible Steel Casting Co., Lansdowne,
Pa.

Julian D'Este Co., Boston, Mass.
Empire Foundry Co., New Brunswick,
N. J.
Fawcus Machine Co., Pittsburgh, Pa.
Hubley Mfg. Co., Lancaster, Pa.
Morgan Engineering Co., Alliance, O.
Ohio Brass Co., Mansfield, O.
Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia, Pa.
E. B. Van Wagner Mfg. Co., Syracuse,
N. Y.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Castings for Sugar Work—
Bethlehem Foundry & Machine Co., S.

Bethlehem, Pa.
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
Fawcus Machine Co., Pittsburgh, Pa.

Castings, Furnace—
Bethlehem Steel Co., So. Bethlehem, Pa.

Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
C. A. Dreisbach Foundry & Machine Co.,
New Haven, Ct.

Fawcus Machine Co., Pittsburgh, Pa.
National Foundry Co., Erie, Pa.
Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia, Pa.
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

Velte Foundry & Machine Co., Pitts-
burgh, Pa.

Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Castings, Galvanized, Gray Iron and Malleable—

Cleveland Galvanizing Works, Cleveland.
Empire Foundry Co., New Brunswick,
N. J.

Wilcox, Crittenden & Co., Middletown, Ct.

Castings, Gas and Gasoline Engines—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Crucible Steel Casting Co., Lansdowne,
Pa.

C. A. Dreisbach Foundry & Machine Co.,
New Haven, Ct.

Empire Foundry Co., New Brunswick,
N. J.

Hopson & Chapin Mfg. Co., New London,
Ct.

Keystone Steel Casting Co., Chester, Pa.

Lebanon Steel Casting Co., Lebanon, Pa.

Morse Iron Works, Erie, Pa.

Thomas Prosser & Son, 26 Platt St., N. Y.

Walker Foundry Co., Erie, Pa.

Castings, Gear Blanks—

Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.

Castings, Governor—
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.

Castings, Gray Iron—

Abendroth & Root Mfg. Co., Newburgh,
N. Y.

Acme Foundry Co., Cleveland, O.

Alaska Freezer Co., Winchendon, Mass.

Allentown Rolling Mills, Allentown, Pa.

Badger State Machine Co., Janesville,
Wis.

Ball Engine Co., Erie, Pa.

Bancroft & Co., Philadelphia, Pa.

Barnes Mfg. Co., Mansfield, Ohio.

Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Birdsboro Steel Foundry & Machine Co.,
Birdsboro, Pa.

E. W. Bliss Co., Brooklyn, N. Y.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Browning Engineering Co., Cleveland, O.

Buffalo Foundry Co., Buffalo, N. Y.

H. W. Caldwell & Son Co., Western
Ave., 17th & 18th Sts., Chicago, Ill.

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

S. Cheney & Son, Manlius, N. Y.

Chicago Hardware Foundry Co., North
Chicago, Ill.

Cleveland Galvanizing Works, Cleveland,
Cleveland, O.

Columbia Gray Iron Co., Columbia, Pa.

J. E. Dimmick & Co., New Land Title
Bldg., Philadelphia, Pa.

C. A. Dreisbach Foundry & Machine Co.,
New Haven, Ct.

Empire Foundry Co., New Brunswick,
N. J.

Enterprise Foundry & Fence Co., Indian-
apolis, Ind.

Fawcett Machine Co., Pittsburgh, Pa.

Stanley G. Flagg & Co., Philadelphia, Pa.

Forest City Foundry & Mfg. Co., Cleve-
land, O.

Gardner General Foundry Co., Gardner,
Mass.

Grabler Mfg. Co., Cleveland, O.

Griswold Mfg. Co., Erie, Pa.

Hartford Foundry Corporation, Hartford,
Ct.

Heindel Mfg. Co., Hanover, Pa.

Hershey Machine & Foundry Co., Man-
heim, Pa.

Hilles & Jones Co., Wilmington, Del.

Hopson & Chapin Mfg. Co., New London,
Ct.

Hubley Mfg. Co., Lancaster, Pa.

Janney, Steinmetz & Co., Philadelphia.

Jarecki Mfg. Co., Erie, Pa.

Keystone Farm Machine Co., York, Pa.

Thomas Laughlin Co., Portland, Me.

J. Howard Lingle Co., Bellefonte, Pa.

Homer F. Livermore Co., Boston, Mass.

Lynchburg Foundry Co., Lynchburg, Va.

Malleable Iron Works, New Britain, Ct.

Charles Millar & Son Co., Utica, N. Y.

Franklin Moore Co., Winsted, Ct.

Morgan Engineering Co., Alliance, O.

Morse Iron Works, Erie, Pa.

National Foundry Co., Erie, Pa.

National Sewing Machine Co., Belvidere,
Ill.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

North Bros. Mfg. Co., Lehigh Ave. &
American St., Philadelphia, Pa.

Palmer & De Mooy Foundry Co., Cleve-
land, O.

Henry Perkins Co., Bridgewater, Mass.

Philadelphia Roll & Machine Co., 23d
St. & Washington Ave., Philadelphia.

Pittsburgh Valve Foundry & Construc-
tion Co., Pittsburgh, Pa.

Poole Engineering & Machine Co., Balti-
more, Md.

Rock Island Tool Co., Rock Island, Ill.

Louis Sacks, Newark, N. J.

Sessions Foundry Co., Bristol, Ct.

L. S. Spencer's Sons, Guilford, Ct.

Standard Engineering Co., Ellwood City,
Pa.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Stoever Foundry & Mfg. Co., Lebanon,
Pa.

Susquehanna Casting Co., Wrightsville,
Pa.

Taylor & Fenn Co., Hartford, Ct.

Taylor & Boggis Foundry Co., Cleveland,
Universal Caster & Foundry Co., 1170
Broadway, New York.

Vilter Mfg. Co., Milwaukee, Wis.

Vulcan Iron Works, 23 No. Irving Ave.,
Chicago, Ill.

Walker Foundry Co., Erie, Pa.

Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

West Side Foundry Co., Troy, N. Y.

R. W. Whitehurst Co., Norfolk, Va.

Wilcox, Crittenden & Co., Inc., Middle-
town, Ct.

Castings, Gun Iron—

Best Mfg. Co., Pittsburgh, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Buffalo Foundry Co., Buffalo, N. Y.

Fewcus Machine Co., Pittsburgh, Pa.

Philadelphia Roll & Machine Co., 23d St.
& Washington Ave., Philadelphia, Pa.

Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

Castings, Gun Metal—

Hercules Brass & Bell Foundry, Cincinnati, O.

Castings, Hardened Surface Steel—

Armor Steel & Foundry Co., Matthews, Ind.

Castings, Ice Machine Fittings—

Keystone Steel Casting Co., Chester, Pa.

Castings, Iron—

Abendroth & Root Mfg. Co., Newburgh, N. Y.

Allentown Rolling Mills, Allentown, Pa.

American Bridge Co. of New York, 42 Broadway, New York.

American Cast Iron Pipe Co., Birmingham, Ala.

American Tool & Machine Co., Boston.

Badger State Machine Co., Janesville, Wis.

Ball Engine Co., Erie, Pa.

Bancroft & Co., Philadelphia, Pa.

Barbour-Stockwell Co., Cambridgeport, Mass.

Bausch Machine Tool Co., Springfield, Mass.

Belmont Iron Works, Inc., Philadelphia.

Best Mfg. Co., Pittsburgh, Pa.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Birmingham Iron Foundry, Derby, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Bridgeport Decoxidized Bronze & Metal Co., Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence, R. I.

Buchanan Foundry Co., Lebanon, Pa.

Buffalo Foundry Co., Buffalo, N. Y.

Builders Iron Foundry, Providence, R. I.

H. W. Caldwell & Son Co., Western Ave., 17th & 18th Sts., Chicago, Ill.

Thos. Carlin's Sons, Allegheny, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Columbia Grey Iron Co., Columbia, Pa.

J. K. Dimmick & Co., New Land Title Bldg., Philadelphia, Pa.

Dimmick Pipe Co., Birmingham, Ala.

C. A. Dreisbach Foundry & Machine Co., New Haven, Ct.

East Bangor Mfg. Co., East Bangor, Pa.

Empire Foundry Co., New Brunswick, N. J.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Farrel Foundry & Mach. Co., Ansonia, Ct.

Fawcuss Machine Co., Pittsburgh, Pa.

A. W. Findlay & Co., Philadelphia, Pa.

Stanley G. Flag & Co., Philadelphia, Pa.

Forest City Foundry & Mfg. Co., Cleveland, O.

Hilles & Jones Co., Wilmington, Del.

George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

Hopson & Chapin Mfg. Co., New London, Ct.

Hubley Mfg. Co., Lancaster, Pa.

Humphreys Mfg. Co., Mansfield, O.

Humphrey Machine Co., Keene, N. H.

Janney, Steinmetz & Co., Drexel Bldg., Lynchburg Foundry Co., Lynchburg, Va.

McClave-Brooks Co., Scranton, Pa.

Mackintosh, Hemphill & Co., Pittsburgh, Pa.

Malleable Iron Works, New Britain, Ct.

Mesta Machine Co., Pittsburgh, Pa.

Chas. Millar & Son Co., Utica, N. Y.

Morgan Engineering Co., Alliance, O.

Morse Iron Works, Erie, Pa.

H. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

National Brake & Electric Co., Milwaukee, Wis.

National Foundry Co., Erie, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pennsylvania Engineering Works, New Castle, Pa.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

Robins Conveying Belt Co., Park Row Bldg., New York.

Royersford Foundry & Machine Co., Royersford, Pa.

Sessions Foundry Co., Bristol, Ct.

Soule Steam Feed Works, Meridian, Miss.

I. S. Spencer's Sons, Guilford, Ct.

Susquehanna Casting Co., Wrightsville, Pa.

Taylor & Boggs Foundry Co., Cleveland.

Taylor-Wilson Mfg. Co., McKees Rocks, Pa.

United Engineering & Foundry Co., Pittsburgh, Pa.

United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York.

Velte Foundry & Machine Co., Pittsburgh, Pa.

Vilter Mfg. Co., Milwaukee, Wis.

Walker Foundry Co., Erie, Pa.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Wellman-Seaver-Morgan Co., Cleveland, O.

West Side Foundry Co., Troy, N. Y.

Western Foundry & Sash Weight Co., 2d and Miller Sts., St. Louis, Mo.

Robert Wetherill & Co., Chester, Pa.

Wheeling Mold & Foundry Co., Wheeling, W. Va.

R. W. Whitehurst Co., Norfolk, Va.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Homer F. Livermore, Boston, Mass.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

Castings, Iron, Special—

Abendroth & Root Mfg. Co., Newburgh, N. Y.

Bethlehem Steel Co., So. Bethlehem, Pa.

Buffalo Foundry Co., Buffalo, N. Y.

Chicago Hardware Foundry Co., North Chicago, Ill.

Empire Foundry Co., New Brunswick, N. J.

Fawcuss Machine Co., Pittsburgh, Pa.

Humphrey Machine Co., Keene, N. H.

Lynchburg Foundry Co., Lynchburg, Vt.
Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia.
Susquehanna Casting Co., Wrightsville,
Pa.

United States Cast Iron & Foundry Co.,
71 Broadway, New York.
Walker Foundry Co., Erie, Pa.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Castings, Iron. Thermit Process—
Goldschmidt Thermit Co., 43 Exchange
Pl., New York.

Castings, Lamp Post—
A. W. Findlay & Co., Philadelphia, Pa.

Castings, Lathe—
Buffalo Foundry Co., Buffalo, N. Y.
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
C. A. Dreisbach Foundry & Machine Co.,
New Haven, Ct.

Keystone Steel Casting Co., Chester, Pa.
Lebanon Steel Casting Co., Lebanon, Pa.
Morse Iron Works, Erie, Pa.
Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia.
Walker Foundry Co., Erie, Pa.

Castings, Lead—
American Tool & Machine Co., Boston,
Mass.

Castings, Locomotive and Car—
American Steel Foundries, 42 Broadway,
New York.

Bethlehem Steel Co., So. Bethlehem, Pa.
Buffalo Foundry Co., Buffalo, N. Y.
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
Crucible Steel Casting Co., Lansdowne,
Pa.

Federal Steel Foundry Co., Chester, Pa.
Humphrey Machine Co., Keene, N. H.
Keystone Steel Casting Co., Chester, Pa.
Lebanon Steel Casting Co., Lebanon, Pa.
Morse Iron Works, Erie, Pa.
National Foundry Co., Erie, Pa.
Seaboard Steel Casting Co., Chester, Pa.
Walker Foundry Co., Erie, Pa.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Castings, Malleable Iron—
Acme Steel & Malleable Iron Works,
Buffalo, N. Y.
Bancroft & Co., Philadelphia, Pa.
Chisholm & Moore Mfg. Co., Cleveland, O.
Cleveland Galvanizing Works, Cleveland.
Columbus Malleable Casting Co., Colum-
bus, O.

East Bangor Mfg. Co., East Bangor, Pa.
Fawcus Machine Co., Pittsburgh, Pa.
Stanley G. Flagg & Co., Philadelphia, Pa.
Fort Pitt Malleable Co., Pittsburgh, Pa.
Hammer & Co., Branford, Ct.
Janney, Steinmetz & Co., Philadelphia.
Jarecki Mfg. Co., Erie, Pa.
Jeffrey Mfg. Co., Columbus, O.
Thomas Laughlin Co., Portland, Me.
Homer F. Livermore, Boston, Mass.
Malleable Iron Works, New Britain, Ct.
Morse Iron Works, Erie, Pa.
Northern Malleable Iron Co., St. Paul,
Minn.
Sterlingworth Railway Supply Co., Easton,
Pa.

T. H. Symington Co., Baltimore, Md.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.
Walter W. Woodruff & Sons Co., Mt. Carmel,
Ct.

Castings, Malleable Steel—
Western Malleable Steel Co., Detroit,
Mich.
Northern Malleable Iron Co., St. Paul,
Minn.

Castings, Manganese Bronze—
Bethlehem Steel Co., So. Bethlehem, Pa.
J. B. Chapman & Co., Springfield, Mass.
Clum & Atkinson, Rochester, N. Y.
Fawcus Machine Co., Pittsburgh, Pa.
Hercules Brass & Bell Foundry, Cincinnati, O.

Lunkenheimer Co., Cincinnati, O.
Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.

Castings, Manganese Steel—
Bancroft & Co., Philadelphia, Pa.
Crucible Steel Casting Co., Lansdowne,
Pa.

Keystone Steel Casting Co., Chester, Pa.
New Process Steel Co., Marshall, Mich.
Geo. H. Smith Steel Casting Co., Milwaukee, Wis.
Taylor Iron & Steel Co., High Bridge,
N. J.

Castings, Man Hole, Cistern, Cover, Sewer, Gutter, Crossing, &c.—
(See Iron Work, Builders.)

Castings, Marine, Machine, &c.—

Abendroth & Root Mfg. Co., Newburgh,
N. Y.
Acme Foundry Co., Cleveland, O.
American Steel Foundries, 42 Broadway,
New York.

Bethlehem Foundry & Machine Co., So.
Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.
Buffalo Foundry Co., Buffalo, N. Y.
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
Columbus Malleable Castings Co., Colum-
bus, O.

Crucible Steel Casting Co., Lansdowne,
Pa.
C. A. Dreisbach Foundry & Machine Co.,
New Haven, Ct.

East Bangor Mfg. Co., East Bangor, Pa.
Empire Foundry Co., New Brunswick,
N. J.

Fawcus Machine Co., Pittsburgh, Pa.
G. & W. Mfg. Co., 26 Cortlandt St., N. Y.
Hilles & Jones Co., Wilmington, Del.
Hopson & Chapin Mfg. Co., New London,
Humphrey Machine Co., Keene, N. H.

Keystone Steel Casting Co., Chester, Pa.
Lebanon Steel Casting Co., Lebanon, Pa.
Morse Iron Works, Erie, Pa.
National Foundry Co., Erie, Pa.
Northern Malleable Iron Co., St. Paul,
Minn.

Henry Perkins Co., Bridgewater, Mass.
Thomas Prosser & Son, 26 Platt St., N. Y.
Seaboard Steel Casting Co., Chester, Pa.
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

United States Cast Iron Pipe & Foundry
Co., 71 Broadway, New York.

Walker Foundry Co., Erie, Pa.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

West Side Foundry Co., Troy, N. Y.
Castings, Navy Ordnance Work—

Federal Steel Foundry Co., Chester, Pa.
Castings, Nickel Steel—
Bethlehem Steel Co., So. Bethlehem, Pa.
Crucible Steel Casting Co., Lansdowne,
Pa.

Keystone Steel Casting Co., Chester, Pa.
Lebanon Steel Casting Co., Lebanon, Pa.
New Process Steel Co., Marshall, Mich.
Thomas Prosser & Son, 26 Platt St., N.Y.
Taylor Iron & Steel Co., High Bridge,
N. J.

Castings, Open Hearth—
Federal Steel Foundry Co., Chester, Pa.
National Foundry Co., Erie, Pa.
Thomas Prosser & Son, 26 Platt St., N.Y.

Castings, Phosphor-Bronze—

J. B. Chapman & Co., Springfield, Mass.
Clum & Atkinson, Rochester, N. Y.
Fawcuss Machine Co., Pittsburgh, Pa.
Hercules Brass & Bell Foundry, Cincinnati, O.
Lunkenheimer Co., Cincinnati, O.
Mackintosh, Hemphill & Co., Pittsburgh,
Pa.

Morgan Engineering Co., Alliance, O.
Nolte Brass Co., Springfield, O.
Ohio Brass Co., Mansfield, O.
Phosphor Bronze Smelting Co., 2200 Wash-
ington Ave., Philadelphia, Pa.
Pittsburgh Valve Foundry & Construc-
tion Co., Pittsburgh, Pa.
Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
Sheffield Car Co., Three Rivers, Mich.

Castings, Piano Plate—
Chicago Hardware Foundry Co., North
Chicago, Ill.

Henry Perkins Co., Bridgewater, Mass.
Castings, Plow—
S. Cheuey & Son, Manlius, N. Y.
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
Lebanon Steel Casting Co., Lebanon, Pa.
Lynchburg Foundry Co., Lynchburg, Va.
Morse Iron Works, Erie, Pa.
R. W. Whitehurst Co., Norfolk, Va.

Castings, Precision—
(See Castings, Die Molded.)

Castings, Propeller Wheel—
Federal Steel Foundry Co., Chester, Pa.

Castings, Pulley—
Chester Steel Casting Co., 407 Sansom
St., Philadelphia, Pa.

Humphrey Machine Co., Keene, N. H.
Keystone Steel Casting Co., Chester, Pa.
Poole Engineering & Machine Co., Bal-
timore, Md.
Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Castings, Railroad—
Columbus Malleable Castings Co., Colum-
bus, O.
Northern Malleable Iron Co., St. Paul,
Minn.

Castings, Rolling Mill—
Armor Steel & Foundry Co., Matthews,
Ind.

Birdsboro Steel Foundry & Machine Co.,
Birdsboro, Pa.

Birmingham Iron Foundry, Derby, Ct.
Buffalo Foundry Co., Buffalo, N. Y.
Thos. Carlin's Sons, Allegheny, Pa.
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.
Crucible Steel Casting Co., Lansdowne,
Pa.

Fawcuss Machine Co., Pittsburgh, Pa.
Federal Steel Foundry Co., Chester, Pa.
George A. Hogg I. & S. Foundry Co.,
Pittsburgh, Pa.

Keystone Steel Casting Co., Chester, Pa.
Lewis Foundry & Machine Co., Groveton,
Pa.
Mackintosh, Hemphill & Co., Pittsburgh,
Pa.

Mesta Machine Co., Pittsburgh, Pa.
Morgan Engineering Co., Alliance, O.
National Foundry Co., Erie, Pa.
Pennsylvania Engineering Works, New
Castle, Pa.

Philadelphia Roll & Machine Co., 23d St.
& Washington Ave., Philadelphia, Pa.
Poole Engineering & Machine Co., Balti-
more, Md.

Seaboard Steel Casting Co., Chester, Pa.
United Engineering & Foundry Co., Pitts-
burgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.
Wheeling Mold & Foundry Co., Wheeling,
W. Va.

Castings, Semi-Steel—
Ball Engine Co., Erie, Pa.
Best Mfg. Co., Pittsburgh, Pa.
Bethlehem Foundry & Machine Co., So.
Bethlehem, Pa.
Birmingham Iron Foundry, Derby, Ct.
Buffalo Foundry & Machine Co., Buffalo,
N. Y.

H. W. Caldwell & Son Co., Western
Ave., 17th & 18th Sts., Chicago, Ill.
Fawcuss Machine Co., Pittsburgh, Pa.

Hammer & Co., Branford, Ct.
Lunkenheimer Co., Cincinnati, O.
Mackintosh, Hemphill & Co., Pittsburgh,
Pa.

Mesta Machine Co., Pittsburgh, Pa.
Morgan Engineering Co., Alliance, O.
National Brake & Electric Co., Milwan-
kee, Wis.

Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.
Walker Foundry Co., Erie, Pa.

Castings, Slag and Cinder Car—

Federal Steel Foundry Co., Chester, Pa.

Castings, Special Alloys—
Crucible Steel Casting Co., Lansdowne,
Pa.

Castings, Stamp Mill—
Buffalo Foundry Co., Buffalo, N. Y.
Chester Steel Castings Co., 407 Sansom
St., Philadelphia, Pa.

Chrome Steel Works, Chrome, N. J.
Fawcuss Machine Co., Pittsburgh, Pa.
Federal Steel Foundry Co., Chester, Pa.
Lebanon Steel Casting Co., Lebanon, Pa.

Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia.
Wellman-Seaver-Morgan Co., Cleveland, O.

**Castings, Steam and Hy-
draulic Piping—**
Federal Steel Foundry Co., Chester, Pa.

Castings, Steamship Construction—

Federal Steel Foundry Co., Chester, Pa.

Castings, Steel—

Acme Steel & Malleable Iron Works, Buffalo, N. Y.

American Bridge Co. of New York, 42 Broadway, New York.

American Steel Foundries, 42 Broadway, New York.

Armor Steel & Foundry Co., Matthews, Ind.

Bancroft & Co., Philadelphia, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Chester Steel Castings Co., 407 Sansom St., Philadelphia, Pa.

Chicago Steel Foundry Co., Chicago, Ill.

Chrome Steel Works, Chrome, N. J.

Crucible Steel Casting Co., Lansdowne, Pa.

Fawcoss Machine Co., Pittsburgh, Pa.

Federal Steel Foundry Co., Chester, Pa.

A. W. Findlay & Co., Philadelphia, Pa.

Stanley G. Flag & Co., Philadelphia, Pa.

Hammer & Co., Branford, Ct.

Janney, Steinmetz & Co., Philadelphia.

Keystone Steel Casting Co., Chester, Pa.

Lebanon Steel Casting Co., Lebanon, Pa.

Mackintosh, Hemphill & Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.

Monarch Grubber Co., Lone Tree, Ia.

National Brake & Electric Co., Milwaukee, Wis.

National Foundry Co., Erie, Pa.

Otis Steel Co., Ltd., Cleveland, O.

Thomas Prosser & Son, 26 Platt St., N.Y.

Seaboard Steel Casting Co., Chester, Pa.

Sharon Foundry Co., Sharon, Pa.

Geo. H. Smith Steel Casting Co., Milwaukee, Wis.

Taylor Iron & Steel Co., High Bridge, N. J.

United Engineering & Foundry Co., Pittsburgh, Pa.

Velte Foundry & Machine Co., Pittsburgh, Pa.

William B. Walter & Co., Marquette Bldg., Chicago, Ill.

Wellman-Seaver-Morgan Co., Cleveland, O.

A. P. Wittman & Co., 233 Cherry St., Philadelphia, Pa.

MERCHANTS.

Denman & Davis, 85-91 Lafayette St., New York.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.

Homer F. Livermore, Boston, Mass.

Edgar M. Moore & Co., Pittsburgh, Pa.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

Castings, Steel, Case Hardened—

New Process Steel Co., Marshall, Mich.

Castings, Steel Elevator—

American Steel Foundries, 42 Broadway, New York.

Crucible Steel Casting Co., Lansdowne, Pa.

Keystone Steel Casting Co., Chester, Pa.

Castings, Steel, Tempered—

New Process Steel Co., Marshall, Mich.

Castings, Steel, Thermit Process—

Goldschmidt Thermit Co., 43 Exchange Pl., New York.

Castings, Stove—

S. Cheney & Son, Manlius, N. Y.

Castings, Sugar Mill—

Buffalo Foundry & Machine Co., Buffalo, N. Y.

Castings, Tinned, Malleable and Gray Iron—

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Castings, Truss—

Buchanan Foundry Co., Lebanon, Pa.

Castings, Tunnel—

Lynchburg Foundry Co., Lynchburg, Va.

Castings, Vanadium Steel—

Crucible Steel Casting Co., Lansdowne, Pa.

New Process Steel Co., Marshall, Mich.**Castings, Water Works—**

Abendroth & Root Mfg. Co., Newburgh, N. Y.

Buffalo Foundry Co., Buffalo, N. Y.

Builders Iron Foundry, Providence, R. I.

Crucible Steel Casting Co., Lansdowne, Pa.

Federal Steel Foundry Co., Chester, Pa.

Humphrey Machine Co., Keene, N. H.

Keystone Steel Casting Co., Chester, Pa.

Lynchburg Foundry Co., Lynchburg, Va.

Charles Millar & Son Co., Utica, N. Y.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Taylor-Wilson Mfg. Co., McKees Rocks, Pa.

United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Castings, White Metal—

Bancroft & Co., Philadelphia, Pa.

Cleveland Galvanizing Works, Cleveland, Ohio.

Ohio Brass Co., Mansfield, O.

Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Veeder Mfg. Co., Hartford, Ct.

York Pattern Works, York, Pa.

Castings, Worm Gear—

Keystone Steel Casting Co., Chester, Pa.

Castings, Wrought Iron—

National Tube Co., Pittsburgh, Pa.

Catalogue Printers and Publishers—

(See Printers and Publishers, Catalogue.)

Catch Basin Covers—

(See Covers, Catch Basin.)

Catchers, Grass—

Ney Mfg. Co., Canton, O.

Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.

Specialty Mfg. Co., St. Anthony Park, Minn.

Supplee Hardware Co., Market and 5th Sts., Philadelphia, Pa.

Whitman & Barnes Mfg. Co., Chicago.

Catchers, Mail-
Taylor & Boggis Foundry Co., Cleveland, O.

Catches and Fasteners, Refrigerator -
Arcade Mfg. Co., Freeport, Ill.

Catches, Barn Door-
S. Cheney & Son, Manlius, N. Y.
Lawrence Bros., Sterling, Ill.

Catches, Basement Window-
Caldwell Mfg. Co., Rochester, N. Y.

Catches, Cupboard-
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.
Taylor & Boggis Foundry Co., Cleveland, O.

W. & J. Tiebout, 118 Chambers St., N. Y.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Catches, Door-
Ney Mfg. Co., Canton, O.

Catches, Elbow-
Ney Mfg. Co., Canton, O.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Catches, Fancy Box-
E. B. Stimpson Co., 31 Spruce St., N. Y.

Catches, Ice House-
W. & J. Tiebout, 118 Chambers St., N. Y.

Catches, Refrigerator-
Arcade Mfg. Co., Freeport, Ill.

Catches, Screen Door-
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Catches, Showcase-
Reading Hardware Co., Reading, Pa.

Catches, Transom-
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Catches, Trunk-
J. H. Sessions & Son, Bristol, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Catches, Window-
Caldwell Mfg. Co., Rochester, N. Y.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.
W. & J. Tiebout, 118 Chambers St., N. Y.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Cattle Leaders, &c.-
(See Leaders, Prods, &c.)

Cattle Punches-
(See Punches, Cloth and Cattle.)

Cattle Ties-
(See Ties, Cattle.)

Ceiling and Siding, Iron or Steel-
American Sheet & Tin Plate Co., Pittsburgh, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Eller Mfg. Co., Canton, O.
Empire Iron & Steel Co., Niles, O.

Follansbee Bros. Co., Pittsburgh, Pa.
Globe Iron Roofing & Corrugating Co., Cincinnati, O.

Newport Rolling Mill Co., Newport, Ky.
New York Metal Ceiling Co., 537 W. 24th St., New York.

Niles Corrugating Co., Niles, O.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.
Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.
Bourne-Fuller Co., Cleveland, O.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Merchant & Evans Co., Philadelphia, Pa.
Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Ceiling Hooks-
(See Hooks, Chandelier or Lamp.)

Ceiling Pulleys-
(See Pulleys, Ceiling.)

Cellar Box Spring Cotters-
(See Cotters and Keys, Spring.)

Celluloid Machinery-
Ferrell Foundry & Machine Co., Ansonia, Ct.

Cement-
Lawrence Cement Co., 1 Broadway, N. Y.

Cement, Belting-
Graton & Knight Mfg. Co., Worcester, Mass.

N. Palmer & Co., Bridgeport, Ct.

Cement Brick and Block Machines-
Zimmerman Steel Co., Lone Tree, Ia.

Cement Drills-
(See Drills, Brick and Cement.)

Cement for Disc Wheels-
Gardner Machine Co., Beloit, Wis.

Cement, Iron-
S. Obermayer Co., Cincinnati, O.

Shelton Metallic Filler Co., Derby, Ct.
Smooth-On Mfg. Co., Jersey City, N. J.

Cement Machinery-
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.

Thomas Prosser & Son, 26 Platt St., N. Y.

Cement, Roofing-
Globe Iron Roofing & Corrugating Co., Cincinnati, O.

National Roofing Co., Tonawanda, N. Y.
Stowell Mfg. Co., Jersey City, N. J.

Cement, Silica, Magnesia and Chrome-
American Refractories Co., Joliet, Ill.
Harbison-Walker Refractories Co., Pittsburgh, Pa.

Castings, Steamship Construction—

Federal Steel Foundry Co., Chester, Pa.

Castings, Steel—

Acme Steel & Malleable Iron Works,

Buffalo, N. Y.

American Bridge Co. of New York, 42

Broadway, New York.

American Steel Foundries, 42 Broadway,

New York.

Armor Steel & Foundry Co., Matthews,

Ind.

Bancroft & Co., Philadelphia, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Birdsboro Steel Foundry & Machine Co.,

Birdsboro, Pa.

Chester Steel Castings Co., 407 Sansom

St., Philadelphia, Pa.

Chicago Steel Foundry Co., Chicago, Ill.

Chrome Steel Works, Chrome, N. J.

Crucible Steel Casting Co., Lansdowne,

Pa.

Fawcett Machine Co., Pittsburgh, Pa.

Federal Steel Foundry Co., Chester, Pa.

A. W. Findlay & Co., Philadelphia, Pa.

Stanley G. Flag & Co., Philadelphia, Pa.

Hammer & Co., Branford, Ct.

Janney, Steinmetz & Co., Philadelphia,

Keystone Steel Casting Co., Chester, Pa.

Lebanon Steel Casting Co., Lebanon, Pa.

Mackintosh, Hemphill & Co., Pittsburgh,

Pa.

Mesta Machine Co., Pittsburgh, Pa.

Monarch Grubber Co., Lone Tree, Ia.

National Brake & Electric Co., Milwau-

kee, Wis.

National Foundry Co., Erie, Pa.

Otis Steel Co., Ltd., Cleveland, O.

Thomas Prosser & Son, 26 Platt St., N.Y.

Seaboard Steel Casting Co., Chester, Pa.

Sharon Foundry Co., Sharon, Pa.

Geo. H. Smith Steel Casting Co., Mil-

waukee, Wis.

Taylor Iron & Steel Co., High Bridge,

N. J.

United Engineering & Foundry Co., Pitts-

burgh, Pa.

Vette Foundry & Machine Co., Pitts-

burgh, Pa.

William B. Walter & Co., Marquette

Bldg., Chicago, Ill.

Wellman-Seaver-Morgan Co., Cleveland, O.

A. P. Wittman & Co., 233 Cherry St.,

Philadelphia, Pa.

MERCHANTS.

Denman & Davis, 85-91 Lafayette St.,

New York.

Dilworth, Gilbert & Towne, Inc., 35-37

Wooster St., New York.

General-Supply-Iron-Steel & Rail Co.,

Cincinnati, O.

C. B. Houston & Co., Girard Trust

Bldg., Philadelphia, Pa.

Homer F. Livermore, Boston, Mass.

Edgar M. Moore & Co., Pittsburgh, Pa.

F. R. Phillips & Sons Co., Pennsylvania

Bldg., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

Castings, Steel, Case Hard-

ened—

New Process Steel Co., Marshall, Mich.

Castings, Steel Elevator—

American Steel Foundries, 42 Broadway,

New York.

Crucible Steel Casting Co., Lansdowne,

Pa.

Keystone Steel Casting Co., Chester, Pa.

Castings, Steel, Tempered—

New Process Steel Co., Marshall, Mich.

Castings, Steel, Thermit

Process—

Goldschmidt Thermit Co., 43 Exchange

Pl., New York.

Castings, Stove—

S. Cheney & Son, Manlius, N. Y.

Castings, Sugar Mill—

Buffalo Foundry & Machine Co., Buffalo,

N. Y.

Castings, Tinned, Malleable

and Gray Iron—

Wilcox, Crittenden & Co., Inc., Middle-

town, Ct.

Castings, Truss—

Buchanan Foundry Co., Lebanon, Pa.

Castings, Tunnel—

Lynchburg Foundry Co., Lynchburg, Va.

Mesta Machine Co., Pittsburgh, Pa.

Castings, Vanadium Steel—

Crucible Steel Casting Co., Lansdowne,

Pa.

New Process Steel Co., Marshall, Mich.

Castings, Water Works—

Abendroth & Root Mfg. Co., Newburgh,

N. Y.

Buffalo Foundry Co., Buffalo, N. Y.

Builders Iron Foundry, Providence, R. I.

Crucible Steel Casting Co., Lansdowne,

Pa.

Federal Steel Foundry Co., Chester, Pa.

Humphrey Machine Co., Keene, N. H.

Keystone Steel Casting Co., Chester, Pa.

Lynchburg Foundry Co., Lynchburg, Va.

Charles Millar & Son Co., Utica, N. Y.

Philadelphia Roll & Machine Co., 23d St.

& Washington Ave., Philadelphia, Pa.

Taylor-Wilson Mfg. Co., McKees Rocks,

Pa.

United States Cast Iron Pipe & Foundry

Co., 71 Broadway, New York.

R. D. Wood & Co., 400 Chestnut St.,

Philadelphia, Pa.

Castings, White Metal—

Bancroft & Co., Philadelphia, Pa.

Cleveland Galvanizing Works, Cleveland,

Ohio.

Brass Co., Mansfield, O.

Paul S. Reeves & Son, Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Veeder Mfg. Co., Hartford, Ct.

York Pattern Works, York, Pa.

Castings, Worm Gear—

Keystone Steel Casting Co., Chester, Pa.

Castings, Wrought Iron—

National Tube Co., Pittsburgh, Pa.

Catalogue Printers and

Publishers—

(See Printers and Publishers, Catalogue.)

Catch Basin Covers—

(See Covers, Catch Basin.)

Catchers, Grass—

Ney Mfg. Co., Canton, O.

Philadelphia Lawn Mower Co., 3100-3109

Chestnut St., Philadelphia, Pa.

Speciaty Mfg. Co., St. Anthony Park,

Minn.

Supple Hardware Co., Market and 5th

Sts., Philadelphia, Pa.

Whitman & Barnes Mfg. Co., Chicago.

Catchers, Mail—
Taylor & Boggis Foundry Co., Cleveland, O.

Catches and Fasteners, Refrigerator—

ArCADE Mfg. Co., Freeport, Ill.

Catches, Barn Door—

S. Cheney & Son, Manlius, N. Y.

Lawrence Bros., Sterling, Ill.

Catches, Basement Window—

Caldwell Mfg. Co., Rochester, N. Y.

Catches, Cupboard—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.

Taylor & Boggis Foundry Co., Cleveland, O.

W. & J. Tiebout, 118 Chambers St., N. Y.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Catches, Door—

Ney Mfg. Co., Canton, O.

Catches, Elbow—

Ney Mfg. Co., Canton, O.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Catches, Fancy Box—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Catches, Ice House—

W. & J. Tiebout, 118 Chambers St., N. Y.

Catches, Refrigerator—

ArCADE Mfg. Co., Freeport, Ill.

Catches, Screen Door—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Catches, Showcase—

Reading Hardware Co., Reading, Pa.

Catches, Transom—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Catches, Trunk—

J. H. Sessions & Son, Bristol, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Catches, Window—

Caldwell Mfg. Co., Rochester, N. Y.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.

W. & J. Tiebout, 118 Chambers St., N. Y.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Cattle Leaders, &c.—

(See Leaders, Prods. &c.)

Cattle Punches—

(See Punches, Cloth and Cattle.)

Cattle Ties—

(See Ties, Cattle.)

Ceiling and Siding, Iron or Steel—

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Eller Mfg. Co., Canton, O.

Empire Iron & Steel Co., Niles, O.

Follansbee Bros. Co., Pittsburgh, Pa.

Globe Iron Roofing & Corrugating Co., Cincinnati, O.

Newport Rolling Mill Co., Newport, Ky.

New York Metal Ceiling Co., 537 W. 24th St., New York.

Niles Corrugating Co., Niles, O.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Merchant & Evans Co., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Ceiling Hooks—

(See Hooks, Chandelier or Lamp.)

Ceiling Pulleys—

(See Pulleys, Ceiling.)

Cellar Box Spring Cotters—

(See Cotters and Keys, Spring.)

Celluloid Machinery—

Ferrell Foundry & Machine Co., Ansonia, Ct.

Cement—

Lawrence Cement Co., 1 Broadway, N. Y.

Cement, Belting—

Graton & Knight Mfg. Co., Worcester, Mass.

N. Palmer & Co., Bridgeport, Ct.

Cement Brick and Block Machines—

Zimmerman Steel Co., Lone Tree, Ia.

Cement Drills—

(See Drills, Brick and Cement.)

Cement for Disc Wheels—

Gardner Machine Co., Beloit, Wis.

Cement, Iron—

S. Obermayer Co., Cincinnati, O.

Shelton Metallic Filler Co., Derby, Ct.

Smooth-On Mfg. Co., Jersey City, N. J.

Cement Machinery—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.

Thomas Prosser & Son, 26 Platt St., N.Y.

Cement, Roofing—

Globe Iron Roofing & Corrugating Co., Cincinnati, O.

National Roofing Co., Tonawanda, N. Y.

Stowell Mfg. Co., Jersey City, N. J.

Cement, Silica, Magnesia and Chrome—

American Refractories Co., Joliet, Ill.

Harbison-Walker Refractories Co., Pittsburgh, Pa.

Cement, Stove—

Jos. Dixon Crucible Co., Jersey City, N. J.

Center Drills, Gauges, Indicators, Testers—

(See Drills, Gauges, Indicators, Testers.)

Center Grinders, Lathe—

(See Grinders, Lathe Center.)

Centering Chucks—

(See Chucks, Centering.)

Centering Machines—

Espen-Lucas Machine Works, Broad and

Noble Sts., Philadelphia, Pa.

Hendey Machine Co., Torrington, Ct.

National Machine Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway,

New York.

Pratt & Whitney Co., Hartford, Ct.

D. E. Whiton Machine Co., New London,

Ct.

MERCHANTS,

Marshall & Hushcart Machinery Co., 63

S. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal

St., Chicago, Ill.

Motch & Merryweather Machinery Co.,

Cleveland, O.

Vandyck-Churchill Co., 8 Dey St., N. Y.

Centers, Indexing—

Becker-Brainard Milling Machine Co.,

Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

Mark Flather Planer Co., Nashua, N. H.

Garvin Machine Co., Spring & Varick Sts.,

New York.

Gould & Eberhardt, Newark, N. J.

Hendey Machine Co., Torrington, Ct.

W. B. Knight Machinery Co., St. Louis,

Mo.

Potter & Johnston Machine Co., Paw-

tucket, R. I.

Powell Tool Co., Worcester, Mass.

Pratt & Whitney Co., Hartford, Ct.

Stockbridge Machine Co., Worcester,

Mass.

Centers, Planer and Shaper—

Cincinnati Planer Co., Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway,

New York.

Centers, Sash and Transom—

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette

St., New York.

Susquehanna Casting Co., Wrightsville,

Pa.

Cesspools—

Barnes Mfg. Co., Mansfield, O.

Goulds Mfg. Co., Seneca Falls, N. Y.

Chafing Dishes—

(See Dishes, Chafing.)

Chain, Aluminum—

Bridgeport Chain Co., Bridgeport, Ct.

Chain, Automobile—

Diamond Chain & Mfg. Co., Indianapolis,

Ind.

Chain Belting, Hoists, &c.—

(See Belting, Hoists, &c.)

Chain, Bicycle—

Boston Gear Works, Norfolk Downs, Mass.

Diamond Chain & Mfg. Co., Indianapolis,

Ind.

Chain, Block—

Diamond Chain & Mfg. Co., Indianapolis,

Ind.

Chain, Brake—

(See Chain, Railroad.)

Chain, Brake, Electric Car—

Standard Chain Co., Pittsburgh, Pa.

Chain, Bronze, Brass, Iron**and Steel—**

Bridgeport Chain Co., Bridgeport, Ct.

Andrew B. Hendryx Co., New Haven, Ct.

Thomas Morton, 183 Lafayette St., N. Y.

Oneida Community, Ltd., Kenwood, N. Y.

Chain, Cable, Flat Link—

Diamond Chain & Mfg. Co., Indianapolis,

Ind.

Thomas Morton, 183 Lafayette St., N. Y.

Chain, Coil—

Bradlee & Co., Beach St. & E. Susque-

hanna Ave., Philadelphia, Pa.

Bridgeport Chain Co., Bridgeport, Ct.

New Castle Forge & Bolt Co., New Cas-

tle, Pa.

New Jersey Foundry & Machine Co., 9-

15 Murray St., New York.

Oneida Community, Ltd., Kenwood, N. Y.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chain, Coil, German Pat-**tern—**

Standard Chain Co., Pittsburgh, Pa.

Chain, Common Steel—

Standard Welding Co., Cleveland, O.

Chain, Conveyor—

H. W. Caldwell & Son Co., Western Ave.,

17th and 18th Sts., Chicago, Ill.

Diamond Chain & Mfg. Co., Indianapolis,

Ind.

Interstate Engineering Co., Bedford, O.

Link-Belt Co., Philadelphia, Pa.

New Castle Forge & Bolt Co., New Cas-

tle, Pa.

Standard Chain Co., Pittsburgh, Pa.

Wire Goods Co., Worcester, Mass.

Woodhouse Chain Works, Trenton, N. J.

Chain, Crane, Cable, &c.—

Bradlee & Co., Beach St. & E. Susque-

hanna Ave., Philadelphia, Pa.

Alfred Field & Co., 93 Chambers St.,

New York.

C. W. Hunt Co., West New Brighton,

N. Y.

Jones & Laughlin Steel Co., Pittsburgh.

New Castle Forge & Bolt Co., New Cas-

tle, Pa.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga

Falls, O.

Woodhouse Chain Works, Trenton, N. J.

Yale & Towne Mfg. Co., 9 Murray St.,

New York.

MERCHANTS,

Broderick & Eascom Rope Co., St. Louis,

H. W. Caldwell & Son Co., Western Ave.

and 17th St., Chicago, Ill.

Arthur C. Harvey Co., Boston, Mass.

A. Leschen & Sons Rope Co., St. Louis,

Wickes Bros., Saginaw, Mich.

Chain, Detachable Link—

Link-Belt Co., Philadelphia, Pa.

Chain Dogs—

(See Dogs, Ring & Chain.)

Chain, Driving—

H. W. Caldwell & Son Co., Western

Ave. and 17th St., Chicago, Ill.

Diamond Chain & Mfg. Co., Indianapolis,

Ind.

Link-Belt Co., Philadelphia, Pa.
Morse Chain Co., Ithaca, N. Y.

Chain, Galvanized—
Cleveland Galvanizing Works, Cleveland.
New Castle Forge & Bolt Co., New Castle, Pa.

Oneida Community, Ltd., Kenwood, N.Y.
Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

Chain, Hoisting—
(See Chain, Crane, Cable, &c.)

Chain, Jack, Safety, Ladder, &c.—

Bridgeport Chain Co., Bridgeport, Ct.
A. B. Hendryx & Co., New Haven, Ct.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Parker Wire Goods Co., Worcester, Mass.
Plume & Atwood Mfg. Co., Waterbury, Ct.
Smith & Egge Mfg. Co., Bridgeport, Ct.
Turner & Stanton Co., Norwich, Ct.
Wire Goods Co., Worcester, Mass.

Chain, Ladder—
(See Chain, Jack, Safety, &c.)

Chain Links and Chain—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Bridgeport Chain Co., Bridgeport, Ct.
Dodge Mfg. Co., Mishawaka, Ind.
Wm H. Haskell Mfg. Co., Pawtucket, R. I.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Link-Belt Co., Philadelphia, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Rhode Island Tool Co., Providence, R. I.
M. Seward & Son Co., New Haven, Ct.
Standard Chain Co., Pittsburgh, Pa.
Taylor Iron & Steel Co., High Bridge, N. J.

W. S. Mfg. Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

Chain Links, Cutters for Sawing Bicycle—
(See Bicycle Chain Links, Cutters for Sawing.)

Chain, Lumber Boom—
New Castle Forge & Bolt Co., New Castle, Pa.

Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

Chain Machinery—
Bridgeport Chain Co., Bridgeport, Ct.
Diamond Chain & Mfg. Co., Indianapolis, Ind.

Standard Chain Co., Pittsburgh, Pa.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Chain Machinery, Bicycle—
Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
Garvin Machine Co., Spring and Varick Sts., New York.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Chain, Machine, German Pattern—

Standard Chain Co., Pittsburgh, Pa.

Chain, Picture—
Bridgeport Chain Co., Bridgeport, Ct.
Andrew B. Hendryx Co., New Haven, Ct.
Turner & Stanton Co., Norwich, Ct.

Chain, Plumbers—
(See Chain, Jack, Safety, &c.)

Chain, Pocket Wheel—
Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Chain Pot Cleaners—
(See Kitchen Articles, Wire.)

Chain, Pump—
Bridgeport Chain Co., Bridgeport, Ct.
Cleveland Galvanizing Works, Cleveland.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Oneida Community, Ltd., Kenwood, N. Y.

Chain Pump Fixtures—
(See Pump Fixtures, Chain.)

Chain Pump Tubing—
(See Tubing, Chain Pump.)

Chain, Railroad, Brake, Switch, &c.—

New Castle Forge & Bolt Co., New Castle, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Chain, Sash—
Oneida Community, Ltd., Kenwood, N.Y.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Thomas Morton, 183 Lafayette St., N. Y.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Chain, Settees, Swing—
Oneida Community, Ltd., Kenwood, N.Y.

Chain, Sprocket—
Diamond Chain & Mfg. Co., Indianapolis, Ind.

Andrew B. Hendryx Co., New Haven, Ct.
Morse Chain Co., Ithaca, N. Y.
Thomas Morton, 183 Lafayette St., N. Y.
Standard Chain Co., Pittsburgh, Pa.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Chain, Steam Shovel and Dredge—

Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

Chain, Stud Link—
Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.

M. Lanz & Sons, Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

Chain, Switch—
(See Chain, Railroad.)

Chain, Ventilator—
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Chains, Agricultural—
Bridgeport Chain Co., Bridgeport, Ct.
Link-Belt Co., Philadelphia, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.

Oneida Community, Ltd., Kenwood, N. Y.
Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains and Locks, Baggage—

Ames Sword Co., Chicopee, Mass.
Chains, Binding, &c.—
Standard Chain Co., Pittsburgh, Pa.

Chains, Bird Cage—

Andrew B. Hendryx Co., New Haven, Ct.
Parker Wire Goods Co., Worcester, Mass.

Chains, Breast—

Covert Mfg. Co., Troy, N. Y.
(See also Chains, Wagon and Fancy.)

Chains, Bushed—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Link-Belt Co., Philadelphia, Pa.

Chains, Cart—

Bridgeport Chain Co., Bridgeport, Ct.
Covert Mfg. Co., Troy, N. Y.
Oneida Community, Ltd., Kenwood, N. Y.
Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

Chains, Dog and Halter—

Bridgeport Chain Co., Bridgeport, Ct.
Covert Mfg. Co., Troy, N. Y.
Alfred Field & Co., 93 Chambers St., New York.

Oneida Community, Ltd., Kenwood, N. Y.
Smith & Egge Mfg. Co., Bridgeport, Ct.
Standard Chain Co., Pittsburgh, Pa.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Wire Goods Co., Worcester, Mass.
Woodhouse Chain Works, Trenton, N. J.

Chains, Flat Link—

Bridgeport Chain Co., Bridgeport, Ct.
Diamond Chain & Mfg. Co., Indianapolis, Ind.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Link-Belt Co., Philadelphia, Pa.
Thomas Morton, 183 Lafayette St., N. Y.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Oneida Community, Ltd., Kenwood, N. Y.
Rhode Island Tool Co., Providence, R. I.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Chains, Flower Basket—

Andrews Wire & Iron Works, Rockford, Ill.

Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

Chains, Harness—

Bridgeport Chain Co., Bridgeport, Ct.
Covert Mfg. Co., Troy, N. Y.
Andrew B. Hendryx Co., New Haven, Ct.
Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

Chains, Heel—

Bridgeport Chain Co., Bridgeport, Ct.
Covert Mfg. Co., Troy, N. Y.
Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

Chains, Hobbles—

Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

Chains, Hog—

M. Lanz & Sons, Pittsburgh, Pa.
Link-Belt Co., Philadelphia, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.

Chains, Hydrant—

Bridgeport Chain Co., Bridgeport, Ct.

Chains, Ice Elevator—

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Link-Belt Co., Philadelphia, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Chains, Island Tool Co., Providence, R. I.

American Ring Co., Waterbury, Ct.
Ames Sword Co., Chicopee, Mass.

Bridgeport Chain Co., Bridgeport, Ct.
Smith & Egge Mfg. Co., Bridgeport, Ct.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Chains, Loading, Steel—

Standard Chain Co., Pittsburgh, Pa.

Chains, Log, Detachable—

Link-Belt Co., Philadelphia, Pa.

Chains, Log, Rafting, &c.—

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Chains, Measuring—

Keuffel & Esser Co., 127 Fulton St., New York.

Chains, Ox—

(See Chains, Log.)

Chains, Picket, Staking Out—

Bridgeport Chain Co., Bridgeport, Ct.
Oneida Community, Ltd., Kenwood, N. Y.
Standard Chain Co., Pittsburgh, Pa.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Woodhouse Chain Works, Trenton, N. J.

Chains, Pipe Hanging—

Oneida Community, Ltd., Kenwood, N. Y.

Chains, Post—

Bridgeport Chain Co., Bridgeport, Ct.
Covert Mfg. Co., Troy, N. Y.
Oneida Community, Ltd., Kenwood, N. Y.

Chains, Rein—

Covert Mfg. Co., Troy, N. Y.

Chains, Roller—

Link-Belt Co., Inc., Philadelphia, Pa.

Chains, Sash and Attachments—

Bridgeport Chain Co., Bridgeport, Ct.
Thomas Morton, 169 Elm St., New York.
Oneida Community, Ltd., Kenwood, N. Y.
Pullman Mfg. Co., Rochester, N. Y.
Smith & Egge Mfg. Co., Bridgeport, Ct.
Wire Goods Co., Worcester, Mass.

Chains, Ship—

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Standard Chain Co., Pittsburgh, Pa.

Woodhouse Chain Works, Trenton, N. J.

Chains, Sling—

Bradlee & Co., Beach St. & E. Susquehanna Ave., Philadelphia, Pa.
Link-Belt Co., Philadelphia, Pa.
Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Chains, Stake—

(See Chains, Wagon and Fancy.)

Chains, Staking Out—

(See Chains, Picket.)

Chains, Stall—

Covert Mfg. Co., Troy, N. Y.

Oneida Community, Ltd., Kenwood, N. Y.

Chains, Stallion—

Covert Mfg. Co., Troy, N. Y.

Oneida Community, Ltd., Kenwood, N. Y.

Chains, Tie Out—

(See Chains, Picket, Staking Out.)

Chains, Trace—

Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.
Standard Chain Co., Lafayette St., N. Y.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York
Woodhouse Chain Works, Trenton, N. J.

Chains, Transom—
Bridgeport Chain Co., Bridgeport, Ct.
Thomas Morton, 183 Lafayette St., N. Y.
Oneida Community, Ltd., Kenwood, N. Y.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Chains, Wagon and Fancy—
Bridgeport Chain Co., Bridgeport, Ct.
Covert Mfg. Co., Troy, N. Y.
Oneida Community, Niagara Falls, N. Y.
Standard Chain Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

Chains, Weldless—
Bridgeport Chain Co., Bridgeport, Ct.

Chains, Well—
Bridgeport Chain Co., Bridgeport, Ct.
Cleveland Galvanizing Works, Cleveland.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Oneida Community, Ltd., Kenwood, N. Y.
Standard Chain Co., Pittsburgh, Pa.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
Woodhouse Chain Works, Trenton, N. J.

Chair Bottom Knives—
(See Knives, Machine.)

Chairs and Settees, Lawn—
Belmont Iron Works, Inc., Philadelphia.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Buffalo Wire Works Co., Buffalo, N. Y.
Edward Darby & Sons, 233-235 Arch St., Philadelphia.
Dufur & Co., Baltimore, Md.
Enterprise Foundry & Fence Co., Indianapolis, Ind.

Estey Wire Works Co., 59 Fulton St., New York.

Howard & Morse, 45 Fulton St., N. Y.
Keystone Farm Machine Co., York, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Nimmo Fence & Wire Works Co., Norwood, O.

Stewart Iron Works Co., Cincinnati, O.
Van Dorn Iron Works, Cleveland, O.
B. W. Whitehurst Co., Norfolk, Va.

Chairs, Child's—
Chicago Wire Chair Co., 129 N. La Salle Ave., Chicago, Ill.

Chairs, Shop and Factory—
Manufacturing Equipment & Engineering Co., Boston, Mass.

Chairs, Store, Office, &c.—
Chicago Wire Chair Co., 129 N. La Salle Ave., Chicago, Ill.

Chalk Line Reels—
(See Reels, Chalk Line.)

Chalk Lines—
(See Lines, Chalk, Masons', &c.)

Chandelier Hooks—
(See Hooks, Chandelier.)

Chandeliers—
H. A. Matthews Mfg. Co., Seymour, Ct.
Royal Gas Light Co., 215 E. Kinzie St., Chicago, Ill.

Chandeliers and Wall Fixtures—
Reading Hardware Co., Reading, Pa.

Chandlery, Ship, Hardware—
(See Ship Chandlery Hardware.)

Change Makers, Coin—
Lamson Consolidated S. S. Co., Boston, Mass.

Channel Iron Work—
(See Buildings and Bridges.)

Channel, Shoe and Cobblers' Nails—

(See Nails, Shoe, Cobblers', Channel, &c.)

Channeling Machines, Mine and Quarry—

Ingersoll-Rand Co., 11 Broadway, N. Y.

Channels—
(See Beams and Channels.)

Chaplets—
(See Bolts, Anchor.)

Chaplets, Boiler—
Pratt Chuck Co., Frankfort, N. Y.

Chaplets, Foundry—
Gem Mfg. Co., Pittsburgh, Pa.

Chaplets, Laundry, Radiator, &c.—
Fanner Mfg. Co., Cleveland, O.

Chaplets, Radiator—
Pratt Chuck Co., Frankfort, N. Y.

Charcoal—
Springfield Facing Co., Springfield, Mass.
Standard Tin Plate Co., Canonsburg, Pa.

Charcoal, Filtering—
S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Springfield Facing Co., Springfield, Mass.

Charging Machines, Billet—
Modern Steel Structural Co., Waukesha, Wis.

Charging Machines, Furnace—

Alliance Machine Co., Alliance, O.

American Furnace & Machine Co., Pittsburgh, Pa.

George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

Morgan Engineering Co., Alliance, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Charging Machines, Open Hearth—
Modern Steel Structural Co., Waukesha, Wis.

Charging Machines, Pneumatic Locomotive—

Norwalk Iron Works Co., So. Norwalk, Ct.

Check Punches—
(See Punches, Check.)

Checks, Baggage, Key, &c.—
American Railway Supply Co., 24 Park Place, New York.

Bridgeport Brass Co., 233 Broadway, New York.

Eagle Lock Co., Terryville, Ct.

Geo. M. Ness, 61 Fulton St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

Scovill Mfg. Co., Waterbury, Ct.

R. Woodman Mfg. & Supply Co., Boston.

Checks, Door—
Caldwell Mfg. Co., Rochester, N. Y.

Checks, Door, Liquid and Air—
Joseph Bardsley, 147 Baxter St., N. Y.
Pullman Mfg. Co., Rochester, N. Y.

Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Checks, Door, Pneumatic—
 Joseph Badley, 147 Baxter St., N. Y.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Checks, Milk, Pool, &c.—
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 Scovill Mfg. Co., Waterbury, Ct.

Checks, Plantation—
 American Railway Supply Co., 24 Park Place, New York.
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 Scovill Mfg. Co., Waterbury, Ct.

Checks, Repair—
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Louis Sacks, Newark, N. J.
 Scovill Mfg. Co., Waterbury, Ct.

Checks, Time—
 American Railway Supply Co., 24 Park Place, New York.
 Hogson & Pettis Mfg. Co., New Haven, Ct.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 R. Woodman Mfg. & Supply Co., Boston.

Checks, Trade—
 American Railway Supply Co., 24 Park Place, New York.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 Scovill Mfg. Co., Waterbury, Ct.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 R. Woodman Mfg. & Supply Co., Boston.

Cheese Factory Scales—
 (See Scales, Cheese.)

Cheese Knives, &c.—
 (See Knives, &c.)

Chemical Apparatus—
 J. Bishop & Co., Malvern, Pa.
 Elmer & Amend, 205 Third Ave., N. Y.
 Stuart & Peterson Co., Burlington, N. J.

Chemical Supplies—
 Elmer & Amend, 205 Third Ave., N. Y.
 Lalance & Grosjean Mfg. Co., 229 Broadway, New York.

Chemicals and Drugs—
 Elmer & Amend, 205 Third Ave., N. Y.

Chemicals, Electroplating—
 Elmer & Amend, 205 Third Ave., N. Y.
 Hanson & Van Winkle Co., Newark, N. J.
 Zucker & Levett & Loeb Co., 529-539 West 25th St., New York.

Chemists, Consulting and Analytical—

Dearborn Drug & Chemical Works, Postal Telegraph Bldg., Chicago, Ill.
 Henry Souther Engineering Co., Hartford, Ct.

Cherry Seeders and Stoners—
 (See Stoners.)

Chest Handles, Hinges—
 (See Handles, Hinges.)

Chests and Cabinets, Tool—
 American Tool Chest Co., 200 West Houston St., New York.

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
 E. Jennings & Co., 42 Murray St., New York.

Millers Falls Co., 28 Warren St., N. Y.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

James Swan Co., Seymour, Ct.

Children's Trays—
 (See Trays, Silver Plated.)

Chimes, Church and Band—
 Bevin Bros. Mfg. Co., East Hampton, Ct.

Chimney Caps—
 (See Ventilators and Chimney Caps.)

Chimney Tops—
 (See Tops, Chimney, Revolving.)

Chimneys, Brick—
 Kiln & Chimney Construction Co., Brooklyn, N. Y.

Chimneys, Iron and Steel—
 American Bridge Co. of New York, 42 Broadway, New York.

Thomas Carlin's Sons, Allegheny, Pa.
 W. J. Clark Co., Salem, O.

Franklin Boiler Works Co., Troy, N. Y.
 A. D. Granger Co., West St. Bldg., N. Y.

E. Keeler Co., Williamsport, Pa.
 Meehan Boiler & Construction Co., Lowellville, Pa.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

R. S. Newbold & Son Co., Norristown, Pa.

Northern Engineering Works, Detroit, Mich.

Pennsylvania Engineering Works, New Castle, Pa.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Petroleum Iron Works Co., Sharon, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Struthers, Wells & Co., Warren, Pa.
 Tudor Boiler Mfg. Co., Cincinnati, O.

Wicks Bros., Saginaw, Mich.

Chimneys, Perforated Radial Brick—

Kiln & Chimney Construction Co., Brooklyn, N. Y.

Chippers, Ice—
 Alaska Freezer Co., Winchendon, Mass.

North Bros. Mfg. Co., Philadelphia, Pa.

Chips, Leather—
 (See Leather Chips.)

Chisel Gauges, Grinders, Handles—
 (See Gauges, Grinders, Handles.)

Chisels and Gouges, Sock-

et—
 Buck Bros., Millbury, Mass.

C. E. Jennings & Co., 42 Murray St., New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

James Swan Co., Seymour, Ct.
 L. & I. J. White Co., Buffalo, N. Y.

Chisels and Gouges, Tanged—
 Buck Bros., Millbury, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette

St., New York.
James Swan Co., Seymour, Ct.
... & I. J. White Co., Buffalo, N. Y.

Chisels, Box—
Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co. Inc., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.

Chisels, Brick—
Hubbard & Co., Pittsburgh, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co. Inc., Newark, N. J.

Chisels, Calking—
Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co. Inc., Newark, N. J.

Chisels, Cape—
Hubbard & Co., Pittsburgh, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co. Inc., Newark, N. J.

Chisels, Chipping—
Hubbard & Co., Pittsburgh, Pa.

Chisels, Cold—
Fillings & Spencer Co., Hartford, Ct.
Buck Bros., Millbury, Mass.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Hubbard & Co., Pittsburgh, Pa.

Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co. Inc., Newark, N. J.

New Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Snell & Co., Fiskdale, Mass.
Transue & Williams Co., Alliance, O.
Tuck Mfg. Co., Brockton, Mass.

W. L. tman & Barnes Mfg. Co., Chicago.

Chisels, Cutters and Drills.
Granite—
Ingersoll-Rand Co., 11 Broadway, New
York.

Trow & Holden. Barre, Vt.

Chisels, Diamond Point—
Hubbard & Co., Pittsburgh, Pa.
Kilborn & Bishop Co., New Haven, Ct.

Krauter & Co. Inc., Newark, N. J.

Chisels, Floor and Ripping—
Krauter & Co. Inc., Newark, N. J.

Chisels, Hot and Cold—
Heller Bros. Co., Newark, N. J.
Hubbard & Co., Pittsburgh, Pa.

Chisels, Ice—
(Also see Picks and Awls, Ice.)
American Fork & Hoe Co., Cleveland, O.
Landers, Frary & Clark. New Britain, Ct.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Chisels, Ice—
(See Ice Harvesting Tools.)
**Chisels, Mortising, Hollow
and Solid—**
Job T. Pugh. 51st and Ludlow Sts., Phila-
delphia, Pa.

Chisels, Plumbers' Wood—
Krauter & Co. Inc., Newark, N. J.

Chisels, R. R. Track—
Hubbard & Co., Pittsburgh, Pa.

Chisels, Round Nose—
Hubbard & Co., Pittsburgh, Pa.
Krauter & Co. Inc., Newark, N. J.

Chisels, Side—
Hubbard & Co., Pittsburgh, Pa.

Chisels, Stone Cutters—
Hubbard & Co., Pittsburgh, Pa.
Krauter & Co. Inc., Newark, N. J.

Chisels, Tile Setters—
Krauter & Co. Inc., Newark, N. J.

Chisels, Wire—
Niagara Machine & Tool Works. Buffalo,
N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Chocolate Pots—
(See Pots, Silver Plated.)
Choppers—
(See Cutters, Meat, Food and Vegetable.)

Christmas Tree Holders—
(See Holders, Christmas Tree.)
Chrome-Nickel—
Geo. G. Blackwell Sons Co., Ltd. Liver-
pool, Eng.

Chromium—
Goldschmidt Thermit Co., 43 Exchange
Place, New York.

Roesler & Hasslacher Chemical Co., 100
William St., New York.

**Chucking and Turning Ma-
chines, Automatic—**
Niles-Bement-Pond Co., 111 Broadway,
New York.

Potter & Johnson Machine Co., Paw-
tucket, R. I.

Pratt & Whitney Co., Hartford, Ct.

Chucking Machines—
Brown & Sharpe Mfg. Co., Providence,
R. I.

Garvin Machine Co., Spring and Varick
Sts., New York.

Jones & Lamson Machine Co., Spring-
field, Vt.

Potter & Johnston Machine Co., Paw-
tucket, R. I.

Pratt & Whitney Co., Hartford, Ct.
F. E. Reed Co., Worcester, Mass.

MERCHANTS.
Hill, Clarke & Co., Boston, Mass.

Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co.,
Cleveland, O.

A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit,
Mich.

**Chucking Machines, Verti-
cal—**
National Separator & Machine Co., Con-
cord, N. H.

Chucks—
T. R. Almond Mfg. Co., Ashburnham,
Mass.

American Tool & Machine Co., Boston,
Mass.

Cincinnati Chuck Co., Cincinnati, O.
Cushman Chuck Co., Hartford, Ct.

Garvin Machine Co., Spring and Varick
Sts., New York.

Hogson & Pettis Mfg. Co., New Haven,
Ct.

James Swan Co., Seymour, Ct.

Jacobs Mfg. Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Oneida National Chuck Co., Oneida, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette
 St., New York.

Yale & Towne Mfg. Co., 9 Murray St.,
 New York.

Checks, Door, Pneumatic—
 Joseph Bardsley, 147 Baxter St., N. Y.
 Russell & Erwin Mfg. Co., 94-98 Lafayette
 St., New York.

Checks, Milk, Pool, &c.—
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 Scovill Mfg. Co., Waterbury, Ct.

Checks, Plantation—
 American Railway Supply Co., 24 Park
 Place, New York.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 Scovill Mfg. Co., Waterbury, Ct.

Checks, Repair—
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Louis Sacks, Newark, N. J.
 Scovill Mfg. Co., Waterbury, Ct.

Checks, Time—
 American Railway Supply Co., 24 Park
 Place, New York.

Hogson & Pettis Mfg. Co., New Haven,
 Ct.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 R. Woodman Mfg. & Supply Co., Boston.

Checks, Trade—
 American Railway Supply Co., 24 Park
 Place, New York.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 Scovill Mfg. Co., Waterbury, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.
 R. Woodman Mfg. & Supply Co., Boston.

Cheese Factory Scales—
 (See Scales, Cheese.)

Cheese Knives, &c.—
 (See Knives, &c.)

Chemical Apparatus—
 J. Bishop & Co., Malvern, Pa.
 Elmer & Amend, 205 Third Ave., N. Y.
 Stuart & Peterson Co., Burlington, N. J.

Chemical Supplies—
 Elmer & Amend, 205 Third Ave., N. Y.
 Lalance & Grosjean Mfg. Co., 220 Broad-
 way, New York.

Chemicals and Drugs—
 Elmer & Amend, 205 Third Ave., N. Y.

Chemicals, Electroplating—
 Elmer & Amend, 205 Third Ave., N. Y.
 Hanson & Van Winkle Co., Newark, N. J.

Zucker & Levett & Loeb Co., 522-539 West
 25th St., New York.

**Chemists, Consulting and
 Analytical—**
 Dearborn Drug & Chemical Works, Postal
 Telegraph Bldg., Chicago, Ill.

Henry Souther Engineering Co., Hartford,
 Ct.

Cherry Seeders and Stoners—
 (See Stoners.)

Chest Handles, Hinges—
 (See Handles, Hinges.)

Chests and Cabinets, Tool—
 American Tool Chest Co., 290 West Hoban-
 ton St., New York.

Chas. H. Besly & Co., 15-21 Clinton St.,
 Chicago, Ill.

C. E. Jennings & Co., 42 Murray St.,
 New York.

Millers Falls Co., 28 Warren St., N. Y.
 Russell & Erwin Mfg. Co., 94-98 Lafayette
 St., New York.

James Swan Co., Seymour, Ct.

Children's Trays—
 (See Trays, Silver Plated.)

Chimes, Church and Band—
 Bevin Bros. Mfg. Co., East Hampton, Ct.

Chimney Caps—
 (See Ventilators and Chimney Caps.)

Chimney Tops—
 (See Tops, Chimney, Revolving.)

Chimneys, Brick—
 Kiln & Chimney Construction Co., Brook-
 lyn, N. Y.

Chimneys, Iron and Steel—
 American Bridge Co., of New York, 42
 Broadway, New York.

Thomas Carlin's Sons, Allegheny, Pa.
 W. J. Clark Co., Salem, O.

Franklin Boiler Works Co., Troy, N. Y.
 A. D. Granger Co., West St. Bldg., N. Y.

E. Keeler Co., Williamsport, Pa.
 Meehan Boiler & Construction Co., Low-
 ellsville, Pa.

R. Munroe & Sons Mfg. Corporation,
 Pittsburgh, Pa.

R. S. Newbold & Son Co., Norristown,
 Pa.

Northern Engineering Works, Detroit,
 Mich.

Pennsylvania Engineering Works, New
 Castle, Pa.

Pittsburgh Steel Construction Co., Pitts-
 burgh, Pa.

Petroleum Iron Works Co., Sharon, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 13-22 Milwau-
 kee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and
 Wayman Sts., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Struthers, Wells & Co., Warren, Pa.
 Tudor Boiler Mfg. Co., Cincinnati, O.

Wicks Bros., Saginaw, Mich.

**Chimneys, Perforated Ra-
 dial Brick—**
 Kiln & Chimney Construction Co., Brook-
 lyn, N. Y.

Chippers, Ice—
 Alaska Freezer Co., Winchendon, Mass.

North Bros. Mfg. Co., Philadelphia, Pa.

Chips, Leather—
 (See Leather Chips.)

**Chisel Gauges, Grinders,
 Handles—**
 (See Gauges, Grinders, Handles.)

**Chisels and Gouges, Sock-
 et—**

Buck Bros., Millbury, Mass.

C. E. Jennings & Co., 42 Murray St.,
 New York.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette
 St., New York.

James Swan Co., Seymour, Ct.

L. & I. J. White Co., Buffalo, N. Y.

**Chisels and Gouges,
 Tanged—**

Buck Bros., Millbury, Mass.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

James Swan Co., Seymour, Ct.
... & I. J. White Co., Buffalo, N. Y.

Chisels, Box—
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co., Inc., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Chisels, Brick—
Hubbard & Co., Pittsburgh, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co., Inc., Newark, N. J.

Chisels, Calking—
Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co., Inc., Newark, N. J.

Chisels, Cape—
Hubbard & Co., Pittsburgh, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co., Inc., Newark, N. J.

Chisels, Chipping—
Hubbard & Co., Pittsburgh, Pa.

Chisels, Cold—
Fillings & Spencer Co., Hartford, Ct.
Buck Bros., Millbury, Mass.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co., Inc., Newark, N. J.
New Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Snell Mfg. Co., Fiskdale, Mass.
Transue & Williams Co., Alliance, O.
Tuck Mfg. Co., Brockton, Mass.
W. L. Tman & Barnes Mfg. Co., Chicago.

Chisels, Cutters and Drills.
Granite—

Ingersoll-Rand Co., 11 Broadway, New York.

Trow & Holden, Barre, Vt.

Chisels, Diamond Point—
Hubbard & Co., Pittsburgh, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co., Inc., Newark, N. J.

Chisels, Floor and Ripping—
Krauter & Co., Inc., Newark, N. J.

Chisels, Hot and Cold—
Heller Bros. Co., Newark, N. J.
Hubbard & Co., Pittsburgh, Pa.

Chisels, Ice—
(Also see Picks and Awls, Ice.)
American Fork & Hoe Co., Cleveland, O.
Landers, Frary & Clark, New Britain, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.

Chisels, Ice—
(See Ice Harvesting Tools.)

Chisels, Mortising, Hollow and Solid—
Job T. Fugh, 31st and Ludlow Sts., Philadelphia, Pa.

Chisels, Plumbers' Wood—
Krauter & Co., Inc., Newark, N. J.

Chisels, R. R. Track—
Hubbard & Co., Pittsburgh, Pa.

Chisels, Round Nose—
Hubbard & Co., Pittsburgh, Pa.
Krauter & Co., Inc., Newark, N. J.

Chisels, Side—

Hubbard & Co., Pittsburgh, Pa.
Chisels, Stone Cutters—
Hubbard & Co., Pittsburgh, Pa.
Krauter & Co., Inc., Newark, N. J.

Chisels, Tile Setters—
Krauter & Co., Inc., Newark, N. J.

Chisels, Wire—
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Chocolate Pots—
(See Pots, Silver Plated.)

Choppers—
(See Cutters, Meat, Food and Vegetable.)

Christmas Tree Holders—
(See Holders, Christmas Tree.)

Chrome Nickel—
Geo. G. Blackwell Sons Co., Ltd., Liverpool, Eng.

Chromium—
Goldschmidt Thermit Co., 43 Exchange Place, New York.

Roesler & Hasslacher Chemical Co., 100 William St., New York.

Chuckings and Turning Machines, Automatic—
Niles-Bement-Pond Co., 111 Broadway, New York.

Potter & Johnson Machine Co., Pawtucket, R. I.

Pratt & Whitney Co., Hartford, Ct.

Chuckling Machines—
Brown & Sharpe Mfg. Co., Providence, R. I.

Garvin Machine Co., Spring and Varick Sts., New York.

Jones & Lamson Machine Co., Springfield, Vt.

Potter & Johnston Machine Co., Pawtucket, R. I.

Pratt & Whitney Co., Hartford, Ct.
F. E. Reed Co., Worcester, Mass.

MERCHANTS.
Hill, Clarke & Co., Boston, Mass.
Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit, Mich.

Chuckling Machines, Vertical—

National Separator & Machine Co., Concord, N. H.

Chucks—
T. R. Almond Mfg. Co., Ashburnham, Mass.

American Tool & Machine Co., Boston, Mass.

Cincinnati Chuck Co., Cincinnati, O.

Cushman Chuck Co., Hartford, Ct.

Garvin Machine Co., Spring and Varick Sts., New York.

Hopson & Pettis Mfg. Co., New Haven, Conn.

James Swan Co., Seymour, Ct.

Jacobs Mfg. Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Oneida National Chuck Co., Oneida, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pratt & Whitney Co., Hartford, Ct.
 D. Saunders' Sons, Yonkers, N. Y.
 Skinner Chuck Co., New Britain, Ct.
 Standard Tool Co., Cleveland, O.
 Union Mfg. Co., New Britain, Ct.
 Westcott Chuck Co., Oneida, N. Y.
 D. E. Whiton Mach. Co., New London, Ct.
Chucks, Automatic Lever-
 Potter & Johnston Machine Co., Paw-
 tucket, R. I.

Chucks, Centering-
 Hoggson & Pettis Mfg. Co., New Haven,
 Ct.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Skinner Chuck Co., New Britain, Ct.
 Union Mfg. Co., New Britain, Ct.
 Westcott Chuck Co., Oneida, N. Y.
 D. E. Whiton Mach. Co., New London, Ct.

Chucks, Disc Grinder-
 Gardner Machine Co., Beloit, Wis.
 Norton Grinding Co., Worcester, Mass.

Chucks, Drill-
 T. R. Almond Mfg. Co., Ashburnham,
 Mass.
 Cleveland Twist Drill Co., Cleveland, O.
 Cushman Chuck Co., Hartford, Ct.
 Goodell Mfg. Co., Greenfield, Mass.
 Goodell-Pratt Co., Greenfield, Mass.
 Hoggson & Pettis Mfg. Co., New Haven,
 Ct.

E. Horton & Son Co., Windsor Locks, Ct.
 Jacobs Mfg. Co., Hartford, Ct.
 Millers Falls Co., 28 Warren St., N. Y.
 Morse Twist Drill & Machine Co., New
 Bedford, Mass.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

North Bros. Mfg. Co., Philadelphia, Pa.
 Norton Grinding Co., Worcester, Mass.
 Oneida National Chuck Co., Oneida, N. Y.
 Pratt Chuck Co., Frankfort, N. Y.
 Pratt & Whitney Co., Hartford, Ct.
 D. Saunders' Sons, Yonkers, N. Y.
 Schuchardt & Schutte, 136 Liberty St.,
 New York.

Skinner Chuck Co., New Britain, Ct.
 Smith & Hemenway Co., 108-110 Duane
 St., New York.

Standard Tool Co., Cleveland, O.
 Union Mfg. Co., New Britain, Ct.
 Westcott Chuck Co., Oneida, N. Y.
 Whitaker Mfg. Co., Chicago, Ill.
 D. E. Whiton Mach. Co., New London, Ct.
 Wiley & Russell Mfg. Co., Greenfield,
 Mass.

**Chucks, Emery Wheel Bush-
 ing-**
 Norton Grinding Co., Worcester, Mass.

**Chucks for Boring and
 Turning Mills-**
 E. Horton & Son Co., Windsor Locks, Ct.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

Union Mfg. Co., New Britain, Ct.
 Westcott Chuck Co., Oneida, N. Y.

**Chucks for Cutting Off Ma-
 chines-**

Hoggson & Pettis Mfg. Co., New Haven,
 Ct.
 E. Horton & Son Co., Windsor Locks, Ct.
 Oneida National Chuck Co., Oneida, N. Y.
 Skinner Chuck Co., New Britain, Ct.
 Westcott Chuck Co., Oneida, N. Y.

Chucks, Independent, Uni- versal-

Cincinnati Chuck Co., Cincinnati, O.
 Hoggson & Pettis Mfg. Co., New Haven,
 Ct.
 E. Horton & Son Co., Windsor Locks, Ct.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Oneida National Chuck Co., Oneida, N. Y.
 Potter & Johnston Machine Co., Paw-
 tucket, R. I.
 Westcott Chuck Co., Oneida, N. Y.

Chucks, Lathe-
 T. R. Almond Mfg. Co., Ashburnham,
 Mass.

Cincinnati Chuck Co., Cincinnati, O.
 Cushman Chuck Co., Hartford, Ct.
 Goodell-Pratt Co., Greenfield, Mass.
 Hoggson & Pettis Mfg. Co., New Haven,
 Ct.
 E. Horton & Son Co., Windsor Locks, Ct.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

Oneida National Chuck Co., Oneida, N. Y.
 Pratt & Whitney Co., Hartford, Ct.
 Skinner Chuck Co., New Britain, Ct.
 Union Mfg. Co., New Britain, Ct.
 Westcott Chuck Co., Oneida, N. Y.
 D. E. Whiton Mach. Co., New London, Ct.

Chucks, Milling Machine-
 Brown & Sharpe Mfg. Co., Providence,
 R. I.
 Hoggson & Pettis Mfg. Co., New Haven,
 Ct.

E. Horton & Son Co., Windsor Locks, Ct.
 Marshall & Huschart Machinery Co., 62
 S. Canal St., Chicago, Ill.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

Oneida National Chuck Co., Oneida, N. Y.
 Skinner Chuck Co., New Britain, Ct.
 Union Mfg. Co., New Britain, Ct.
 Westcott Chuck Co., Oneida, N. Y.

Chucks, Planer-
 American Tool Works Co., Cincinnati, O.
 Cincinnati Planer Co., Cincinnati, O.
 Fox Machine Co., Grand Rapids, Mich.
 New Haven Mfg. Co., New Haven, Ct.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

Oneida National Chuck Co., Oneida, N. Y.
 Powell Tool Co., Worcester, Mass.
 Francis Reed Co., Worcester, Mass.
 Skinner Chuck Co., New Britain, Ct.
 Union Mfg. Co., New Britain, Ct.

Chucks, Spinning-
 Adriance Machine Works, Brooklyn, N. Y.
 E. W. Bliss Co., Brooklyn, N. Y.

Chucks, Tap-
 E. Horton & Son Co., Windsor Locks, Ct.
 Oneida National Chuck Co., Oneida, N. Y.
 Westcott Chuck Co., Oneida, N. Y.

Chucks, Wire-
 Pratt & Whitney Co., Hartford, Ct.
 Sloan & Chace Mfg. Co., Ltd., Newark,
 N. J.

Church Chimes-
 (See Chimes, Church and Band.)

Churches, Portable-
 Portable Construction Co., 16 S. William
 St., New York.

**Churn Machinery and
 Tools-**
 Peter Gerlach Co., Cleveland, O.

Churns—
Standard Churn Mfg. Co., 127 Franklin St., New York.

Chute Linings—
Taylor Iron & Steel Co., High Bridge, N. J.

Chutes, Coal—
W. J. Clark Co., Salem, O.
Hendrick Mfg. Co., Carbondale, Pa.
C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.
Mathew Lanz & Sons, Pittsburgh, Pa.
R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Pennsylvania Engineering Works, New Castle, Pa.

Petroleum Iron Works Co., Sharon, Pa.
Riter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh, Steel Bracket Co., Cedar Rapids, Ia.

Chutes, Extension—
(See Chutes, Coal.)

Chutes, Tubular—
(See Chutes, Coal.)

Cider Mill Teeth—
(See Teeth, Cider Mill.)

Cider Mills—
(See Mills, Cider.)

Cigar Boxes, Silver Plated—
(See Boxes and Jars.)

Cinder Mills—

MERCHANTS.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Filling & Crane, Girard Bldg., Philadelphia, Pa.

Circles, Disc Grinder, Spiral Paper and Cloth—

Charles H. Besly & Co., 15-21 S. Clinton St., Chicago, Ill.

Circles of All Metals—
New York Washer & Gasket Co., Brooklyn, N. Y.

Circular Saw Bench—
(See Bench, Circular Saw.)

Circular Saws—
(See Saws, Circular.)

Cistern Pumps—
(See Pumps, Cistern.)

Clam Hooks—
(See Hooks, Clam.)

Clamp Dogs, Drills—
(See Dogs, Drills.)

Clamps and Slides, Rope—
Broderick & Bascom Rope Co., St. Louis, A. Leschen & Sons Rope Co., St. Louis,

Clamps, Belt—
Billings & Spencer Co., Hartford, Ct.

W. J. Clark Co., Salem, O.
Dodge Mfg. Co., Mishawaka, Ind.

Goodell-Pratt Co., Greenfield, Mass.

Clamps, Boat Builders—
Thomas Laughlin Co., Portland, Me.

James L. Taylor Mfg. Co., Bloomfield, N. J.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

Clamps, Boiler—
A. L. Henderer's Sons, Wilmington, Del.

Wm. G. Le Count, So. Norwalk, Ct.

James L. Taylor Mfg. Co., Bloomfield, N. J.

Clamps, Box and Case—
R. C. Jenkinson & Co., Newark, N. J.

Clamps, Cable Conduit—
Diamond Expansion Bolt Co., 9-15 Murray St., New York.

New Jersey Foundry & Machine Co., 9-13 Murray St., New York.

Clamps, Cabinet, Carpenters', Machinists', Woodworkers', &c.—

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Columbia Grey Iron Co., Columbia, Pa.

Grabler Mfg. Co., Cleveland, O.

Hammer & Co., Branford, Ct.

Oliver Machinery Co., Grand Rapids, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Smith & Hemenway Co., 108-110 Duane St., New York.

L. S. Starrett Co., Athol, Mass.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

James L. Taylor Mfg. Co., Bloomfield, N. J.

Western Tool & Mfg. Co., Springfield, O.

Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

Clamps, Carriage—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

James L. Taylor Mfg. Co., Bloomfield, N. J.

Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

Clamps, Carriage and Truck Makers', Spring—

James L. Taylor Mfg. Co., Bloomfield, N. J.

Clamps, Column—
James L. Taylor Mfg. Co., Bloomfield, N. J.

Clamps, Curtain Frame—
Wrightsville Hardware Co., Wrightsville, Pa.

Clamps, Dock Builders—
James L. Taylor Mfg. Co., Bloomfield, N. J.

Clamps, Electrical Cable—
Diamond Expansion Bolt Co., 9-15 Murray St., New York.

Clamps, Encircling—
(See Clamps, Column.)

Clamps, Flanging—
Hilles & Jones Co., Wilmington, Del.

New Doty Mfg. Co., Janesville, Wis.

Clamps, Guy—
American Iron & Steel Mfg. Co., Lebanon, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Clamps, Hay Rack—
F. E. Myers & Bro., Ashland, O.

Clamps, Hose—
(See Hose Attachments.)

Clamps, Iron, Malleable—
Grabler Mfg. Co., Cleveland, O.

J. D. Smith Foundry Supply Co., Cleveland, O.

Clamps, Key Seat—
L. S. Starrett Co., Athol, Mass.

- Clamps, Lineman's**—
John H. Graham & Co., 113 Chambers St., New York.
Smith & Hemenway Co., 108-110 Duane St., New York.
- Clamps, Miter**—
James L. Taylor Mfg. Co., Bloomfield, N. J.
- Clamps, Parallel**—
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
- Clamps, Plow, Nuted**—
Upson Nut Co., Cleveland, O.
- Clamps, Pole**—
(See Telegraph and Telephone Pole Supplies.)
- Clamps, Quick Acting**—
James L. Taylor Mfg. Co., Bloomfield, N. J.
- Clamps, Quilt and Curtain Frame**—
Arcade Mfg. Co., Freeport, Ill.
Fanner Mfg. Co., Cleveland, O.
Reading Hardware Co., Reading, Pa.
- Clamps, Rule**—
L. S. Starrett Co., Athol, Mass.
- Clamps, Saw**—
Henry Diston & Sons, Philadelphia, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
- Clamps, Hardware Co., Reading, Pa.**
James L. Taylor Mfg. Co., Bloomfield, N. J.
- Clamps, Splicing**—
Cronk & Carrier Mfg. Co., Elmira, N. Y.
John H. Graham & Co., 113 Chambers St., New York.
- Clamps, Steel**—
Excelsior Tool & Machine Co., E. St. Louis, Ill.
Grabler Mfg. Co., Cleveland, O.
A. L. Henderer's Sons, Wilmington, Del.
W. G. Le Count, East Norwalk, Ct.
National Tube Co., Pittsburgh, Pa.
S. Obermayer Co., Cincinnati, O.
L. S. Starrett Co., Athol, Mass.
James L. Taylor Mfg. Co., Bloomfield, N. J.
- Clamps, Structural Work**—
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
Grabler Mfg. Co., Cleveland, O.
National Tube Co., Pittsburgh, Pa.
James L. Taylor Mfg. Co., Bloomfield, N. J.
- Clamps, Toolmakers**—
Brown & Sharpe Mfg. Co., Providence, R. I.
L. S. Starrett Co., Athol, Mass.
James L. Taylor Mfg. Co., Bloomfield, N. J.
- Clamps, Trunk, Case and Box**—
R. C. Jenkinson & Co., Newark, N. J.
John R. Keim Mills, Inc., Buffalo, N. Y.
J. H. Sessions & Son, Bristol, Ct.
E. B. Stimpson Co., 31 Spruce St., N. Y.
- Clamps, Tubular Fence Post**—
M. K. Fence Co., St. Joseph, Mo.
- Clamps, Vice**—
Prentiss Vice Co., 14 Barclay St., N. Y.
- Clamps, Wagon Spring**—
James L. Taylor Mfg. Co., Bloomfield, N. J.
- Clamps, Wire**—
Otis A. Smith, Rockfall, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.
- Clamps, Wire Rope**—
Broderick & Bascom Rope Co., St. Louis.
M. Lanz & Sons, Pittsburgh, Pa.
Thomas Laughlin Co., Portland, Me.
A. Leschen & Sons Rope Co., St. Louis.
Waterbury Co., 69 South St., New York.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.
- Clamps, Wire Goods Co., Worcester, Mass.**
Wright Wire Co., Worcester, Mass.
- Clapboard Gauges, Markers**—
(See Markers, Clapboard.)
- Clasps, Hoop and Nail**—
Acme Flexible Clasp Co., 2834-2840 Archer Ave., Chicago, Ill.
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
E. B. Stimpson Co., 31 Spruce St., N. Y.
E. H. Titchener & Co., Binghamton, N. Y.
- Clasps, Pencil**—
Stanley Rule & Level Co., New Britain, Ct.
- Claw Bars**—
(See Bars, Crow and Claw.)
- Claws, Coal**—
Wrightsville Hardware Co., Wrightsville, Pa.
- Claws, Tack**—
Keystone Drop Forge Works, Chester, Pa.
Lenders, Frary & Clark, New Britain, Ct.
H. H. Mayhew Co., Shelburne Falls, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Clays, Fire**—
Cyrus Borgner, 23d St. above Race, Philadelphia, Pa.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Hayes Run Fire Brick Co., Orvis, Pa.
Henry Maurer & Son, 420 E. 23d St., N. Y.
S. Obermayer Co., Cincinnati, O.
Ostrander Fire Brick Co., Troy, N. Y.
J. W. Paxson Co., Philadelphia, Pa.
J. D. Smith Foundry Supply Co., Cleveland, O.
- Clays, Shovel**—
(See Shovels, Brick.)
- Clay Working Machinery**—
Chambers Bros. & Co., 52d St. below Lancaster Ave., Philadelphia, Pa.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Cleaner, Wall Paper and Freeco**—
Fuller Mfg. Co., St. Paul, Minn.
- Cleaners, Bar**—
Galton Mfg. Co., Cleveland, O.
Oshorn Mfg. Co., Cleveland, O.

Cleaners, Boiler—

(See Cleaners, Flue.)

Cleaners, Drain—

American Fork & Hoe Co., Cleveland, O.
Hubbard & Co., Pittsburgh, Pa.
Iwan Bros., Streator, Ill.

Cleaners, File—

Nicholson File Co., Providence, R. I.

Cleaners, Finger Nail, Combination—

Billings & Spencer Co., Hartford, Ct.

Cleaners, Floor—

Galton Mfg. Co., Cleveland, O.

Cleaners, Flue—

Fanner Mfg. Co., Cleveland, O.
Gemi Mfg. Co., Pittsburgh, Pa.
Jarecki Mfg. Co., Erie, Pa.
E. Keeler Co., Williamsport, Pa.
Millers Falls Co., 23 Warren St., N. Y.
Osborn Mfg. Co., Cleveland, O.
J. W. Paxon Co., Philadelphia, Pa.
Reversible Tube Cleaner Co., Worcester, Mass.

Walter A. Zelnicker Supply Co., St. Louis, Mo.
(See also Scrapers, Stove.)

Cleaners, Lawn—

Supple Hardware Co., Market and 5th Sts., Philadelphia, Pa.

Cleaners, Portable Vacuum—

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Cleaners, Pot—

(See Kitchen Articles, Wire.)

Cleaners, Sewer—

Osborn Mfg. Co., Cleveland, O.
Cleaners, Shot Gun—
Reversible Tube Cleaner Co., Worcester, Mass.

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Cleaners, Sidewalk—

American Fork & Hoe Co., Cleveland, O.
Avery Stamping Co., Cleveland, O.
Hubbard & Co., Pittsburgh, Pa.

Cleaners, Sink—

Galton Mfg. Co., Cleveland, O.
Osborn Mfg. Co., Cleveland, O.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Cleaners, Tube—

(See Cleaners, Flue.)

Cleaners, Window—

Galton Mfg. Co., Cleveland, O.
Parker Wire Goods Co., Worcester, Mass.
F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.

Clearer Springs—

(See Springs, Clearer.)

Cleats, Brass and Galvanized—

Thomas Laughlin Co., Portland, Me.
W. & J. Ticut, 118 Chambers St., N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Cleats, Line and Rope—

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Parker Wire Goods Co., Worcester, Mass.
Reading Hardware Co., Reading, Pa.
R. W. Whitelurst Co., Norfolk, Va.
Wire Goods Co., Worcester, Mass.

Cleaver Handles—

(See Handles, Grass Hook, &c.)

Cleavers, Butcher, Family, &c.—

Geo. H. Bishop & Co., Cincinnati, O.
John Chatillon & Sons, 85-93 Cliff St., New York.

Griffin Mfg. Co., Erie, Pa.
Landers, Frary & Clark, New Britain, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.

L. & I. J. White Co., Buffalo, N. Y.

Clevises, Malleable—

Northern Malleable Iron Co., St. Paul, Minn.

Clevises, Weldless—

Howard Iron & Tool Co., Bellefonte, Pa.

Climbers, Lineman's—

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.

Clinch Rings, Rivets—

(See Rings, Rivets.)

Clinometers—

Kouffel & Esser Co., 127 Fulton St., N. Y.

Clippers and Shear, Combined—

Roberts Mfg. Co., Somerville, Mass.

Clippers, Bolt and Rivet—

Chambers Bros. & Co., 52d St., below Lancaster Ave., Philadelphia, Pa.
Helwig Mfg. Co., St. Paul, Minn.
Peck, Stow & Wilcox Co., 17 Murray St., New York.

H. K. Porter, Everett, Mass.
Roberts Mfg. Co., Somerville, Mass.

Clippers, Finger Nail—

H. C. Cook & Co., Ansonia, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.
Worcester Pressed Steel Co., Worcester, Mass.

Clippers, Horse and Toilet—

American Shearer Mfg. Co., Nashua, N. H.
Hermann Boker & Co., 101-103 Duane St., New York.
Brown & Sharpe Mfg. Co., Providence, R. I.
Coates Clipper Mfg. Co., Worcester, Mass.
John H. Graham & Co., 113 Chambers St., New York.

Edward S. Hotchkiss, Bridgeport, Ct.
Wiehusch & Hilger, Ltd., 9-15 Murray St., New York.

Clippers, Orange—

J. Wiss & Sons Co., Newark, N. J.
Clippers, Power, Horse—
American Shearer Mfg. Co., Nashua, N. H.
Chicago Flexible Shaft Co., 124-126 La Salle Ave., Chicago, Ill.

Coates Clipper Mfg. Co., Worcester, Mass.

Clippers, Stay Bolt—

(See Cutters, Stay Bolt.)

Clipping Blade Grinders, Horse—

(See Grinders, Horse Clipping Blade.)
Clips, Axle, Spring Bar, &c.—
E. D. Clapp Mfg. Co., Auburn, N. Y.
East Bangor Mfg. Co., East Bangor, Pa.
Richard Eccles Co., Auburn, N. Y.
Franklin Moore Co., Winsted, Ct.
Scranton Forging Co., Scranton, Pa.
M. Seward & Son Co., New Haven, Ct.
Upton Nut Co., Cleveland, O.

Clips, Carriage Trimmers' &c.

East Bangor Mfg. Co., East Bangor, Pa.
United States Clothes Pin Co., Montpelier, Vt.

Clips, Dampers—

Berger Brothers Co., 231-237 Arch St., Philadelphia, Pa.
S. M. Howes Co., Boston, Mass.
Taylor & Boggis Foundry Co., Cleveland, O.
Wrightsville Hardware Co., Wrightsville, Pa.

Clips, Paper—

(See Stationers' Hardware.)
Clips, Photographers'—

United States Clothes Pin Co., Montpelier, Vt.

Clips, Toe and Motor Cycle—

Bevin Bros. Mfg. Co., E. Hampton, Ct.

Clips, Trolley Wire—

(See Trolley Materials, Electric.)

Clips, Umbrella—

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Clips, Wire Rope—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Mathew Lanz & Sons, Pittsburgh, Pa.

Thomas Laughlin Co., Portland, Me.

A. Leschen & Sons Rope Co., St. Louis, Mo.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Williamsport Wire Rope Co., Williamsport, Pa.

Wright Wire Co., Worcester, Mass.

Clock Machinery—

Blake & Johnson Co., Waterbury, Ct.

E. Howard Clock Co., Boston, Mass.

Waltham Machine Works, Waltham, Mass.

Clock Movements—

E. Howard Clock Co., Boston, Mass.

Clock Springs—

(See Springs.)

Clocks—

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Goodwin & Kintz Co., Winsted, Ct.

E. Howard Clock Co., Boston, Mass.

Nanz Clock Co., 127 Duane St., N. Y.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

Sessions Clock Co., Forestville, Ct.

Simmons Hardware Co., St. Louis, Mo.

Clocks, Electric—

E. Howard Clock Co., Boston, Mass.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

Clocks, House, Office, &c.—

E. Howard Clock Co., Boston, Mass.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

Sessions Clock Co., Forestville, Ct.

Clocks, Locomotive and Engine Room—

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Ashton Valve Co., Boston, Mass.

Crosby Steam Gauge & Valve Co., Boston, Mass.

E. Howard Clock Co., Boston, Mass.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

Clocks, Marine—

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Ashton Valve Co., Boston, Mass.

E. Howard Clock Co., Boston, Mass.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

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- Ester Wire Works Co.**, 59 Fulton St., New York.
- Gilbert & Bennett Mfg. Co.**, 277 Broadway, New York.
- Howard & Morse**, 45 Fulton St., N. Y.
- Lindow-Saylor Wire Co.**, St. Louis, Mo.
- Michigan Wire Cloth Co.**, Detroit, Mich.
- New Jersey Wire Cloth Co.**, Trenton, N. J.
- Niagara Wire Cloth Co.**, Buffalo, N. Y.
- Phosphor Bronze Smelting Co.**, 2200 Washington Ave., Philadelphia, Pa.
- W. S. Tyler Co.**, Cleveland, O.
- Wickwire Bros.**, Cortland, N. Y.
- Wright Wire Co.**, Worcester, Mass.
(See also Cloth, Window Screen.)
- Cloth, Wire, Rolled**—
W. S. Tyler Co., Cleveland, O.
- Clothes Brushes**—
(See Brushes, Silver Plated.)
- Clothes Dryers, Hangers, &c.**
(See Dryers, Hangers, &c.)
- Clothes Line Holders, Hooks, &c.**
(See Holders, Hooks, &c.)
- Clothes Pin Machinery**—
Humphrey Machine Co., Keene, N. H.
- Clothes Pins**—
(See Pins, Clothes.)
- Club Houses, Portable**—
(See Houses, Portable.)
- Clubs, Indian**—
Piqua Handle & Mfg. Co., Piqua, O.
- John Sommer's Sons**, Newark, N. J.
- Clutch Couplings, Pulley**—
(See Couplings, Pulley.)
- Clutches, Automatic**—
Humphrey Machine Co., Keene, N. H.
- Clutches, Drill, Spindle Stop**—
Gem Mfg. Co., Pittsburgh, Pa.
- Clutches for Bottoming Taps**—
Helwig Mfg. Co., St. Paul, Minn.
- Clutches, Friction**—
Adriance Machine Works, Brooklyn, N. Y.
- American Tool & Machine Co.**, Boston.
- American Well Works**, Aurora, Ill.
- E. W. Bliss Co.**, Brooklyn, N. Y.
- Boston Gear Works**, Norfolk Downs, Mass.
- Brown Hoisting Machinery Co.**, Cleveland.
- H. W. Caldwell & Son Co.**, Western Ave. and 17th St., Chicago, Ill.
- W. E. Caldwell Co., Inc.**, Louisville, Ky.
- Cowanquesque Valley Iron Works**, Cowanquesque, Pa.
- Geo. V. Crasson Co.**, 18th St. & Allegheny Ave., Philadelphia, Pa.
- Dodge Mfg. Co.**, Mishawaka, Ind.
- Eastern Machinery Co.**, New Haven, Ct.
- Falls Rivet & Machine Co.**, Cuyahoga Falls, O.
- Ferracute Machine Co.**, Bridgeton, N. J.
- Carlyle Johnson Machine Co.**, Hartford, Ct.
- Jones & Laughlin Steel Co.**, Pittsburgh.
- Link-Belt Co.**, Philadelphia, Pa.
- New Haven Mfg. Co.**, New Haven, Ct.
- Poole Engineering & Machine Co.**, Baltimore, Md.
- Pratt & Whitney Co.**, Hartford, Ct.
- Webster Mfg. Co.**, 1075-1111 W. 15th St., Chicago, Ill.
- Wellman-Seaver-Morgan Co.**, Cleveland, O.
- T. R. Wood's Sons Co.**, Chambersburg, Pa.
- Clutches, Jaw**—
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
- W. E. Caldwell Co., Inc.**, Louisville, Ky.
- Dodge Mfg. Co.**, Mishawaka, Ind.
- Eastern Machinery Co.**, New Haven, Ct.
- Falls Rivet & Machine Co.**, Cuyahoga Falls, O.
- Link-Belt Co.**, Philadelphia, Pa.
- Poole Engineering & Machine Co.**, Baltimore, Md.
- T. R. Wood's Sons Co.**, Chambersburg, Pa.
- Clutches, Wood Split Pulley**—
Dodge Mfg. Co., Mishawaka, Ind.
- Coach Mountings, Screws**—
(See Mountings, Screws.)
- Coal**—
Ressemer Coke Co., Pittsburgh, Pa.
- Columbus Iron & Steel Works**, Columbus, O.
- Jamison Coal & Coke Co.**, Pittsburgh, Pa.
- La Belle Iron Works Co.**, Steubenville, O.
- Pilling & Crane**, Girard Bldg., Philadelphia, Pa.
- Tennessee Coal, Iron & Railroad Co.**, 71 Broadway, New York.
- Washington Coal & Coke Co.**, Pittsburgh, Pa.
- MERCHANTS.**
Bole, Ross & Co., Pittsburgh, Pa.
- J. K. Dimmick & Co.**, New Land Title Bldg., Philadelphia, Pa.
- General Supply-Iron-Steel & Rail Co.**, Cincinnati, O.
- J. H. Hillman & Son**, Pittsburgh, Pa.
- G. B. Houston & Co.**, Girard Trust Bldg., Philadelphia, Pa.
- Ernest Law & Co.**, 15th & Market Sts., Philadelphia, Pa.
- J. J. Mohr**, Bullitt Bldg., Philadelphia, Pa.
- Potts & Wittman**, North American Bldg., Philadelphia, Pa.
- Charles G. Shepard**, Buffalo, N. Y.
- Coal and Ash Handling Stations for Locomotives**—
Browning Engineering Co., Cleveland, O.
- Dodge Coal Storage Co.**, Hunting Park Ave. and P. & R. Ry., Philadelphia, Pa.
- C. W. Hunt Co.**, West New Brighton, N. Y.
- Interstate Engineering Co.**, Bedford, O.
- Jeffrey Mfg. Co.**, Columbus, O.
- Coal Cars, Hods, Scales, &c.**—
(See Cars, Hods, Scales, &c.)
- Coal Compressing Machinery**—
(See Compressing Machinery, Coal.)
- Coal Cutters**—
Ingersoll-Rand Co., 11 Broadway, New York.
- Jeffrey Mfg. Co.**, Columbus, O.
- Coal Handling Machinery**—
Broderick & Bascom Rope Co., St. Louis.
- Brown Hoisting Machinery Co.**, Cleveland.
- Browning Engineering Co.**, Cleveland, O.
- H. W. Caldwell & Son Co.**, Western Ave. and 17th St., Chicago, Ill.
- Thos. Carlin's Sons**, Lehigh, Pa.
- Cleveland Punch & Shear Works Co.**, Cleveland, O.

Dodge Coal Storage Co., Hunting Park Ave. and P. & R. Ry., Philadelphia, Pa.

C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.

Jeffrey Mfg. Co., Columbus, O.

Arthur Koppel Co., Pittsburgh, Pa.

A. Leschen & Sons Rope Co., St. Louis.

Lidgerwood Mfg. Co., 96 Liberty St., New York.

Link-Belt Co., Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Robins Conveying Belt Co., Park Row Bldg., New York.

Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.

Wellman-Seaver-Morgan Co., Cleveland, O.

Coal Handling Machinery.

Electric—

Brown Hoisting Machinery Co., Cleveland, O.

C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Coal Handling Pockets—

(See Pockets, Coal Handling.)

Coal Holes—

(See Iron Work, Builders.)

Coal Hoppers on Scales—

F. H. Evans, Brooklyn, N. Y.

Interstate Engineering Co., Bedford, O.

Coal Lands—

J. H. Hillman & Son, Pittsburgh, Pa.

Coal Mining Machinery—

Broderick & Bascom Rope Co., St. Louis.

Fawcett Machine Co., Pittsburgh, Pa.

Ingersoll-Rand Co., 11 Broadway, New York.

Jeffrey Mfg. Co., Columbus, O.

A. Leschen & Sons Rope Co., St. Louis.

Wellman-Seaver-Morgan Co., Cleveland, O.

Coal Storage Machinery—

Dodge Coal Storage Co., Hunting Park Ave. and P. & R. Ry., Philadelphia, Pa.

Link-Belt Co., Philadelphia, Pa.

Northern Engineering Works, Detroit, Mich.

Coal Washing Machinery—

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Co., Philadelphia, Pa.

Coaling Stations, Locomotive—

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.

Link-Belt Co., Philadelphia, Pa.

Sheffield Car Co., Three Rivers, Mich.

Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.

Wellman-Seaver-Morgan Co., Cleveland, O.

Coaster Wagons—

(See Wagons, Coaster.)

Coat Hangers—

(See Hangers, Garment and Trouser.)

Coat Hooks, Racks—

(See Hooks, Racks.)

Coating, Liquid Asphalt—

Stowell Mfg. Co., Jersey City, N. J.

Coating, Wire Rope—

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Cobblers' Outfits—

Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Louis Sacks, Newark, N. J.

Cobblers' Shoe Nails—

(See Nails, Shoe, Cobblers', Channel, &c.)

Cockeyes, Swivel—

(See Eyes, Cock, Swivel.)

Cocks, Brass—

Ashtou Valve Co., Boston, Mass.

John H. Graham & Co., 113 Chambers St., New York.

Hercules Brass & Bell Foundry, Cincinnati, O.

Humphreys Mfg. Co., Mansfield, O.

Landers, Frary & Clark, New Britain, Ct.

J. Howard Lingle Co., Bellefonte, Pa.

Lunkenheimer Co., Cincinnati, O.

National Tube Co., Pittsburgh, Pa.

Nolte Brass Co., Springfield, O.

Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.

Wm. Powell Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Cocks, Cylinder—

Hancock Inspirator Co., 85-89 Liberty St., New York.

Cocks, Gauge—

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Ascheroff Mfg. Co., 85-89 Liberty St., N.Y.

J. Howard Lingle Co., Boston, Mass.

Jenkins Bros., 71 John St., New York.

Lunkenheimer Co., Cincinnati, O.

Ohio Brass Co., Mansfield, O.

Pittsburgh Gauge & Supply Co., Pittsburgh, Pa.

Wm. Powell Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Cocks, Indicator—

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Cocks, Iron—

(See also Faucets, Iron.)

National Tube Co., Pittsburgh, Pa.

Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.

Walworth Mfg. Co., Boston, Mass.

Cocks, Service—

J. Howard Lingle Co., Bellefonte, Pa.

National Tube Co., Pittsburgh, Pa.

Cocks, Steam—

J. Howard Lingle Co., Bellefonte, Pa.

National Tube Co., Pittsburgh, Pa.

Cocks, Stop and Waste—

E. M. Dart Mfg. Co., Providence, R. I.

Coffee Machines—

(See Percolators, Coffee.)

Coffee Mills, Pot Stands—

(See Mills, Stands.)

Coffee Pots—

(See Pots, Tea and Coffee.)

Coffee Sets—

(See Sets, Silver Plated.)

Coffin Hardware—

Blake & Johnson Co., Waterbury, Ct.

Coil Chain—

(See Chain, Coil.)

Coilers, Chain Link—

Turner, Vaughn & Taylor Co., Cayahoga Falls, O.

Collars, Wire—

Baird Machine Co., Oakville, Ct.
Garvin Machine Co., Spring and Varick
Sts., New York.
E. J. Manville Machine Co., Waterbury, Ct.
Morgan Construction Co., Worcester,
Mass.

Coiling Machines, Spring—
(See Spring Coiling Machines.)

Colls, Copper Steam—

E. B. Badger & Sons Co., Boston, Mass.
Pittsburgh Valve, Foundry & Construc-
tion Co., Pittsburgh, Pa.
Whitlock Coil Pipe Co., Hartford, Ct.

Colls, Pipe—

Green Fuel Economizer Co., Matteawan,
N. Y.
Harrisburg Pipe & Pipe Bending Cr.,
Harrisburg, Pa.
National Pipe Bending Co., New Haven,
Ct.

National Tube Co., Pittsburgh, Pa.
Pittsburgh Valve, Foundry & Construc-
tion Co., Pittsburgh, Pa.
Walworth Mfg. Co., Boston, Mass.
Whitlock Coil Pipe Co., Hartford, Ct.

Coin Planchets—

(See Planchets, Coin.)

Coining Machinery—

Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., Hastings,
Mich.
Ferracute Machine Co., Bridgeton, N. J.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Colls, Aluminum—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Colls, Foreign—

Scovill Mfg. Co., Waterbury, Ct.

Coke—

Bessemer Coke Co., Pittsburgh, Pa.
Columbus Iron & Steel Co., Columbus, O.
J. K. Dimmick & Co., 2023 New Land
Title Bldg., Philadelphia, Pa.
Hickman, Williams & Co., Chicago, Ill.
J. H. Hillman & Son, Pittsburgh, Pa.
Jamison Coal & Coke Co., Pittsburgh,
Pa.
La Belle Iron Works, Steubenville, O.
Standard Tin Plate Co., Canonsburg, Pa.
Tennessee Coal, Iron & Railroad Co., 71
Broadway, New York.
Washington Coal & Coke Co., Pittsburgh,
Pa.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.
Bole, Ross & Co., Pittsburgh, Pa.
Bourne-Fuller Co., Cleveland, O.
Cabeen & Co., Arcade Bldg., Philadel-
phia, Pa.
J. Brooks Fenno & Co., Boston, Mass.
General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.
C. B. Houston & Co., Girard Trust Bldg.,
Philadelphia, Pa.
Jerome Keeley & Co., 421 Chestnut St.,
Philadelphia, Pa.
Ernest Law & Co., 15th and Market Sts.,
Philadelphia, Pa.
J. J. Mohr, 131 S. 4th St., Philadelphia.
Edmund W. Mudge & Co., Pittsburgh, Pa.
Pilling & Crane, Girard Bldg., Philadel-
phia, Pa.

Potts & Wittman, North American Bldg.,
Philadelphia, Pa.
Rogers, Brown & Co., Cincinnati, O.
Frank Samuel, Harrison Bldg., Philadel-
phia, Pa.
Charles G. Shepard, Buffalo, N. Y.
W. P. Snyder & Co., Pittsburgh, Pa.
Coke, Crushed—

MERCHANTS.

General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.
J. H. Hillman & Son, Pittsburgh, Pa.
C. B. Houston & Co., Girard Bldg.,
Philadelphia, Pa.
J. J. Mohr, Bullitt Bldg., Philadelphia,
Pa.
Charles G. Shepard, Buffalo, N. Y.

Coke Forks—

(See Forks, Coke.)

Coke Handling and Storage Machinery—

Brown Hoisting Machinery Co., Cleveland.
C. W. Hunt Co., West New Brighton,
N. Y.
Interstate Engineering Co., Bedford, O.
Link-Belt Co., Philadelphia, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Coke Oven Machinery—

Wellman-Seaver-Morgan Co., Cleveland, O.

Coke Pushers—

Wellman-Seaver-Morgan Co., Cleveland, O.

Coke Quenchers—

Wellman-Seaver-Morgan Co., Cleveland, O.

Cold Chisels—

(See Chisels, Cold.)

Cold Sheets—

(See Sheets, Cold.)

Collar Screws—

(See Screws, Collar.)

Collars, Dog—

(See Dog Furnishings.)

Collars, Pole—

Goodell-Pratt Co., Greenfield, Mass.

Collars, Set—

Poole Engineering & Machine Co., Balti-
more, Md.

Collars, Shafting—

H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.
W. E. Caldwell Co., Inc., Louisville, Ky.
Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.
Dodge Mfg. Co., Mishawaka, Ind.
Falls Rivet & Machine Co., Cuyahoga
Falls, O.
Jones & Laughlin Steel Co., Pittsburgh.
Keystone Drop Forge Works, Chester, Pa.
Link-Belt Co., Philadelphia, Pa.
Rhode Island Tool Co., Providence, R. I.
M. I. Smith, Bristol, Ct.
W. & S. Mfg. Co., Worcester, Mass.
Wickes Bros., Saginaw, Mich.
J. H. Williams & Co., Brooklyn, N. Y.
T. B. Wood's Sons Co., Chambersburg,
Pa.
Collars, Stove Pipe—
S. M. Howes Co., Boston, Mass.
Collectors, Dust—
American Blower Co., Detroit, Mich.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Stirling Blower & Pipe Mfg. Co., Hart-
ford, Ct.
B. F. Sturtevant Co., Hyde Park, Mass.

- Collectors, Grass—**
(See Catchers, Grass.)
- Collets, Milling Machine—**
Union Twist Drill Co., Athol, Mass.
- Collets, Turret Tool Holder—**
Cleveland Twist Drill Co., Cleveland, O.
- Colors, Artists' Water—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Colors, Dry Paint—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
- Columns, Cast Iron Building—**
American Bridge Co. of New York, 42 Broadway, New York.
Baltimore Bridge Co., Baltimore, Md.
Bethlehem Foundry & Machine Co., S. Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
W. N. Kratzer & Co., Pittsburgh, Pa.
Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.
Stewart Iron Works, Cincinnati, O.
Walker Foundry Co., Erie, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.
- Columns, Steam and Water Gauge—**
Ashton Valve Co., Boston, Mass.
Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
National Tube Co., Pittsburgh, Pa.
- Columns, Steel—**
Hillen Steel Rail Works, Utrecht, Holland.
- Columns, Veranda—**
(See Iron Work, Builders.)
- Combination Locks, Pliers—**
(See Locks, Pliers.)
- Combination Vises—**
(See Vises, Drill and Anvil.)
- Combs, Curry—**
Advance Mfg. Co., Racine, Wis.
C. E. Jennings & Co., 42 Murray St., New York.
- Combs, Graining—**
F. E. Kohler & Co., Canton, O.
- Smith & Hemenway Co., 108-110 Duane St., New York.**
- Commercial Literature—**
J. H. Gorham, Bridgeport, Ct.
- Commission Merchants, Hardware—**
(See Agents, Hardware Manufacturers.)
- Communion Sets—**
(See Sets, Communion.)
- Commutator Bars and Segments—**
(See Bars and Segments, Commutator.)
- Commutators—**
(See Bars and Segments, Commutator.)
- Compasses, Dividers, &c.—**
Brown & Sharpe Mfg. Co., Providence, R. I.
John H. Graham & Co., 113 Chambers St., New York.
Keuffel & Esser Co., 127 Fulton St., New York.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Smith & Hemenway Co., 108-110 Duane St., New York.
L. S. Starrett Co., Athol, Mass.
- Compasses, Marine—**
Keuffel & Esser Co., 127 Fulton St., New York.
Riggs & Bro., 310 Market St., Philadelphia, Pa.
- Composition, Clay Duplicating, for Hektographs—**
Columbia Duplicator Co., 110 Liberty St., New York.
- Compound, Graphite Pipe Joint—**
Jos. Dixon Crucible Co., Jersey City, N. J.
- Compound, Insulating—**
Ohio Brass Co., Mansfield, O.
- Compound, Motor Chain—**
Joseph Dixon Crucible Co., Jersey City, N. J.
- Compounds, Boiler—**
Dearborn Drug & Chemical Works, Postal Telegraph Bldg., Chicago, Ill.
Wm. B. Scaife & Sons Co., Pittsburgh.
- Compounds, Commutators—**
Jos. Dixon Crucible Co., Jersey City, N. J.
- Compounds for Caulking Pipe Joints—**
Shelton Metallic Filler Co., Derby, Ct.
Smooth-On Mfg. Co., Jersey City, N. J.
- Compounds, Iron—**
Shelton Metallic Filler Co., Derby, Ct.
Smooth-On Mfg. Co., Jersey City, N. J.
- Compressed Air Motors—**
(See Motors, Compressed Air.)
- Compressed Air Tools—**
Cape Ann Tool Co., Pigeon Cove, Mass.
Clayton Air Compressor Works, 114-118 Liberty St., New York.
Helwig Mfg. Co., St. Paul, Minn.
Ingersoll-Rand Co., 11 Broadway, New York.
Kilborn & Bishop Co., New Haven, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
- MERCHANTS.**
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
- Compressing Machinery, Coal—**
Wellman-Seaver-Morgan Co., Cleveland, O.
- Compressing Machinery, Cotton—**
Bethlehem Steel Co., So. Bethlehem, Pa.
- Compression Pumps—**
(See Pumps, Compression and Vacuum.)
- Compressors, Air—**
American Well Works, Aurora, Ill.
Barne's Mfg. Co., Mansfield, O.
Blaisdell Machinery Co., Bradford, Pa.
E. W. Bliss Co., Brooklyn, N. Y.
Builders Iron Foundry, Providence, R. I.
Bury Compressor Co., Erie, Pa.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Clark Novelty Co., Rochester, N. Y.
Clayton Air Compressor Works, 114-118 Liberty St., New York.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Deming Co., Salem, O.
Eynon-Evans Mfg. Co., 1537 Clearfield St., Philadelphia, Pa.

General Electric Co., Schenectady, N. Y.
Ingersoll-Rand Co., 11 Broadway, New York.

John H. McGowan Co., Cincinnati, O.
Mackintosh, Hemphill & Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.
F. E. Myers & Bro., Ashland, O.

National Brake & Electric Co., Milwaukee, Wis.
Niles-Bement-Pond Co., 111 Broadway, New York.

Norwalk Iron Works Co., South Norwalk, Ct.
Riverside Engine Co., Oil City, Pa.

F. W. Spacke Machine Co., Indianapolis, Ind.
Union Steam Pump Co., Battle Creek, Mich.

Robt. Wetherill & Co., Chester, Pa.
MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Charles Behlen, 72 Trinity Place, N. Y.

Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.
Barclay M. Everson, Pittsburgh, Pa.

W. C. Johnson & Sons Machinery Co., St. Louis, Mo.
McDowell & Co., Allegheny, Pa.

Edgar M. Moore & Co., Pittsburgh, Pa.
New York Machinery Depot, 129 Broadway, New York.

S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1921 N. Delaware Ave., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and

Wayman Sts., Chicago, Ill.
L. F. Seyferth & Sons, Inc., 437-441 N. 3d St., Philadelphia, Pa.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Compressors, Air, Portable—

Foos Gas Engine Co., Springfield, O.
National Brake & Electric Co., Milwaukee, Wis.

Compressors, Gas—
American Well Works, Aurora, Ill.

Blaisdell Machinery Co., Bradford, Pa.
Bury Compressor Co., Erie, Pa.

Clayton Air Compressor Works, 114-113 Liberty St., New York.
Ingersoll-Rand Co., 11 Broadway, New York.

Norwalk Iron Works Co., South Norwalk, Ct.
Riverside Engine Co., Oil City, Pa.

F. W. Spacke Machine Co., Indianapolis, Ind.
Union Steam Pump Co., Battle Creek, Mich.

Computing Machines—
(See Adding, Computing and Reckoning Machines.)

Concrete Construction—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Baltimore Bridge Co., Baltimore, Md.
Peterson Construction Co., Pittsburgh, Pa.

Condensers, Ammonia—
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Whitlock Coil Pipe Co., Hartford, Ct.
Condensers, Oil—
Petroleum Iron Works Co., Sharon, Pa.

Condensers, Steam—
Alberger Condenser Co., 95 Liberty St., New York.

Buffalo Foundry & Machine Co., Buffalo, N. Y.
Dean Bros. Steam Pump Works, Indianapolis, Ind.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
Benj. F. Kelley & Son, 91 Liberty St., New York.

John H. McGowan Co., Cincinnati, O.
Mesta Machine Co., Pittsburgh, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.
Union Steam Pump Co., Battle Creek, Mich.

Whitlock Coil Pipe Co., Hartford, Ct.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Conductor Elbows, Fasteners, &c.—
(See Elbows, Fasteners, &c.)

Conductor Pipe Hangers—
(See Hangers, Conductor Pipe.)

Conductors, Pipe, &c.—
American Sheet and Tin Plate Co., Pittsburgh, Pa.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Delpbos Mfg. Co., Delphos, O.
Eller Mfg. Co., Canton, O.

Follanshee Bros. Co., Pittsburgh, Pa.
Thos. W. Irwin Mfg. Co., Allegheny, Pa.

Waite, Ranlet & Co., Boston, Mass.
Conductor Pipe Stock—
(See Sheets, Metal, Eave Trough and Conductor Stock.)

Cones and Cups—
(See Caps and Cones.)

Confectioners' Hatchets—
(See Hatchets, Confectioners'.)

Connecting Rods, Forged Steel—
Carnegie Steel Co., Pittsburgh, Pa.

M. Lanz & Sons, Pittsburgh, Pa.
Thomas Prosser & Son, 35 Platt St., N. Y.

Connectors, Linemen's—
(See Splicers, Wire.)

Contractors' Cars—
(See Cars, Dump.)

Contractors' Carts—
(See Carts, Dump.)

Controllers, Electric—
Case Mfg. Co., Columbus, O.

General Electric Co., Schenectady, N. Y.
Morgan Engineering Co., Alliance, O.

Northern Engineering Works, Detroit, Mich.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Controllers, Electric, for Cranes—
Case Mfg. Co., Columbus, O.

General Electric Co., Schenectady, N. Y.
Morgan Engineering Co., Alliance, O.

Cordage—

American Mfg. Co., 43 Wall St., N. Y.
 Bowditch & Bascom Rope Co., St. Louis.
 New York Cordage Co., 36 Wall St., New York.

A. Leschen & Sons Rope Co., St. Louis.
 Plymouth Cordage Co., North Plymouth, Mass.

Sawson Cordage Works, Boston, Mass.
 Waterbury Co., 29 South St., New York.

Cordage, Braided—

(See Cordage.)

Cords, Hammock—

(See Ropes, Hammock and Hitching.)

Core Boxes, Wood—

J. D. Smith Foundry Supply Co., Cleveland, O.

Core Chaplets—

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Core Machines, Foundry—

Falls River & Machine Co., Cuyahoga Falls, O.

Fox Machine Co., Grand Rapids, Mich.

Core Making Compound—

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Smooth-On Mfg. Co., Jersey City, N. J.

J. D. Smith Foundry Supply Co., Cleveland, O.

Core Oil—

(See Oil, Core.)

Corers, Apple—

Kilbourne Mfg. Co., Troy, N. Y.
 Landers, Frary & Clark, New Britain, Ct.

Parker Wire Goods Co., Worcester, Mass.

Rolman Mfg. Co., Mt. Joy, Pa.

Corers, Platers—

Seymour Mfg. Co., Seymour, Ct.

Cork Cutters—

(See Cutters, &c.)

Corn Cutters, Graters, &c.—

(See Cutters, Graters, &c.)

Corn Knife Handles—

(See Handles, Grass Hook, &c.)

Corn Shellers—

Parker Wire Goods Co., Worcester, Mass.

Corner Irons, Plates—

(See Irons, Plates.)

Corners, Box—

Arme Steel Goods Co., 2334-2340 Archer St., Chicago, Ill.

Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

Corners, Box and Case—

Eagle Lock Co., Terryville, Ct.

K. C. Jenkinson & Co., Newark, N. J.

John R. Keim Mills, Inc., Buffalo, N. Y.

Corners, Trunk—

K. C. Jenkinson & Co., Newark, N. J.

John R. Keim Mills, Inc., Buffalo, N. Y.

J. H. Sessions & Son, Bristol, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Corners, Window Screen—

Columbia Grey Iron Co., Columbia, Pa.

Cornice, &c., Sheet Metal—

Boston Pressed Metal Co., Worcester, Mass.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

G. Iroux Co., Bridgeport, Ct.

Eller Mfg. Co., Canton, O.

Thos. W. Irwin Mfg. Co., Allegheny, Pa.

Cornice Machinery—

Armstrong-Bunn Mfg. Co., 118 N. Francisco Ave., Chicago, Ill.

Badger State Machine Co., Jamesville, Wis.

George A. Ohi & Co., Newark, N. J.

Corrugated Arches—

(See Arches, Curved, Corrugated.)

Corrugated Gaskets—

(See Gaskets, Corrugated.)

Corrugated Iron—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

American Tube & Stamping Co., Bridgeport, Ct.

Baltimore Bridge Co., Baltimore, Md.

Boston Bridge Works, Boston, Mass.

Brown Hoisting Machinery Co., Cleveland, Ohio.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Empire Iron & Steel Co., Niles, O.

Globe Iron Roofing & Corrugating Co., Cincinnati, O.

Inland Steel Co., First National Bank Bldg., Chicago, Ill.

McCullough Iron Co., Wilmington, Del.

Newport Rolling Mill Co., Newport, Ky.

Niles Corrugating Co., Niles, O.

Alan Wood Iron & Steel Co., 325 Arch St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Merchant & Evans Co., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 13-23 Milwaukee Ave., Chicago, Ill.

Wm. B. Seale & Sons, Pittsburgh, Pa.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Corrugated Nails—

(See Nails, Corrugated.)

Corrugated Steel Fasteners—

(See Fasteners, Corrugated Steel.)

Corrugating Machinery, Sheet—

(See Sheet Corrugating Machinery.)

Corset Machinery—

A. H. Nilson Machine Co., Bridgeport, Ct.

Corset Steel—

(See Steel, Corset.)

Corundum—

American Emery Wheel Works, Providence, R. I.

Hamilton Emery & Corundum Co., Chester, Mass.

Keystone Emery Mills, Frankford, Pa.

Norton Co., Worcester, Mass.

Pike Mfg. Co., Pike, N. H.

Star Corundum Wheel Co., Detroit, Mich.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Superior Corundum Wheel Co., Waltham, Mass.

Vitrified Wheel Co., Westfield, Mass.

Corundum Bricks—

American Emery Wheel Works, Providence, R. I.

Cottages, Portable—

(See Houses, Portable.)

Cotter Drills—

(See Drills, Cotter.)

Cotter Pin Machinery—

Blake & Johnson Co., Waterbury, Ct.
F. B. Shuster Co., New Haven, Ct.

Cotter Wire—

(See Wire, Cotter.)

Cotters and Keys, Spring—

Blake & Johnson Co., Waterbury, Ct.
Cobb & Drew, Inc., Plymouth, Mass.
Hindley Mfg. Co., Valley Falls, R. I.
E. Jenckes Mfg. Co., Pawtucket, R. I.
F. P. Smith & Co., Sharon Hill, Pa.
Whitman & Barnes Mfg. Co., Chicago,
Wire Goods Co., Worcester, Mass.

Cotters, Cellar Box, Spring—

(See Cotters and Keys, Spring.)

Cotton and Woolen Manufacturers' Tools—

Brown & Sharpe Mfg. Co., Providence, R. I.

Cotton Bale Snips—

(See Snips, Cotton Bale.)

Cotton Dryers—

(See Dryers, Cloth and Cotton.)

Cotton Hooks, Hose, &c.—

(See Hooks, Hose, &c.)

Cotton Planters—

(See Planters, Cotton.)

Counter Borers, Scales, Supports—

(See Borers, Scales, Supports.)

Counters, Revolution—

American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
Ashton Valve Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston,
W. N. Durant Co., Milwaukee, Wis.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Uehling Instrument Co., Passaic, N. J.
Veeder Mfg. Co., Hartford, Ct.

Counters, Shoe—

Graton & Knight Mfg. Co., Worcester, Mass.

Countershafts—

American Blower Co., Detroit, Mich.
Badger State Machine Co., Janesville, Wis.
Baird Machine Co., Oakville, Ct.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buffalo Forge Co., Buffalo, N. Y.
Builders Iron Foundry, Providence, R. I.
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
Deming Co., Salem, O.
Diamond Machine Co., Providence, R. I.
Dodge Mfg. Co., Mishawaka, Ind.
W. & B. Douglas, Middletown, Ct.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Garvin Machine Co., Spring & Varick Sts., New York.
Gem Mfg. Co., Pittsburgh, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Humphreys Mfg. Co., Mansfield, O.
Mast, Foss & Co., Springfield, O.
Mossberg Wrench Co., Central Falls, R. I.
P. E. Myers Bros., Ashland, O.
Pratt & Whitney Co., Hartford, Ct.
Roxford Foundry & Machine Co., Roxford, Pa.

Standard Pressed Steel Co., 20th & Clearfield Sts., Philadelphia, Pa.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
Wells Bros. Co., Greenfield, Mass.
Wiley & Russell Mfg. Co., Greenfield, Mass.
Zucker & Levett & Loeb Co., 526-530 W. 25th St., New York.

MERCHANTS.

C. C. Wormer Machinery Co., Detroit, Mich.

Countershafts, Friction—

Garvin Machine Co., Spring and Varick Sts., New York.

Countershafts, Right Angle—

T. R. Almond Mfg. Co., Ashburnham, Mass.

Countershafts, Variable Speed—

Norton Grinding Co., Worcester, Mass.

Countersink Bits—

(See Bits, Countersink.)

Countersink Radial Machines—

Detrick & Harvey Machine Co., Baltimore, Md.
Niles-Bement-Pond Co., 111 Broadway, New York.

Countersinks—

Billings & Spencer Co., Hartford, Ct.
Buck Bros., Milbury, Mass.
Butterfield & Co., Derby Line, Vt.
Cleveland Twist Drill Co., Cleveland, O.
Irwin Auger Bit Co., Wilmington, O.
H. H. Mayhew Co., Shelburne Falls, Mass.
Norton Twist Drill & Mach. Co., New Bedford, Mass.
Pratt & Whitney Co., Hartford, Ct.
E. F. Reece Co., Greenfield, Mass.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Otis A. Smith, Rockfall, Ct.

Standard Tool Co., Cleveland, O.

Stanley Rule & Level Co., New Britain, Ct.

L. S. Starrett Co., Athol, Mass.

James Swan Co., Seymour, Ct.

Tuck Mfg. Co., Brockton, Mass.

Wells Bros. & Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Countersunk Head Nails—

(See Nails, Countersunk Head.)

Counting Machines—

W. N. Durant Co., Milwaukee, Wis.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Recording Fare Register Co., New Haven, Ct.

C. J. Root Co., Bristol, Ct.

Veeder Mfg. Co., Hartford, Ct.

Couplers, Automatic Car—

Ohio Brass Co., Mansfield, O.

Couplers, Car—

American Steel Foundries, 42 Broadway, New York.

National Tube Co., Pittsburgh, Pa.

Ernst Wiener Co., Broad and Beaver Sts., New York.

Coupling Bolts—

(See Bolts, Special.)

Coupling Pins and Links—

(See Links and Pins, Car Couplings.)

Couplings, Belt Cars—

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Morgan Engineering Co., Alliance, O.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.
Niles-Bement-Pond Co., 111 Broadway,
New York.
Northern Engineering Works, Detroit,
Mich.
Pawling & Harnischfeger, Milwaukee, Wis.
Wellman-Seaver-Morgan Co., Cleveland, O.
Whiting Foundry Equipment Co., Harvey,
Ill.
Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Cranes, Hand Power—
Alliance Machine Co., Alliance, O.
Bethlehem Foundry & Machine Co., South
Bethlehem, Pa.
Boston Bridge Works, Boston, Mass.
Alfred Box & Co., Front & Poplar Sts.,
Philadelphia, Pa.
Brown Hoisting Machinery Co., Cleveland,
Byram & Co., Detroit, Mich.
Case Mfg. Co., Columbus, O.
Chisholm & Moore Mfg. Co., Cleveland, O.
Cleveland Crane & Car Co., Wickliffe, O.
Cleveland Punch & Shear Works Co.,
Cleveland, O.
Franklin Portable Crane & Hoist Co.,
Franklin, Pa.
General Pneumatic Tool Co., Montour
Falls, N. Y.
Interstate Engineering Co., Bedford, O.
Morgan Construction Co., Worcester,
Mass.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.
Niles-Bement-Pond Co., 111 Broadway,
New York.
Northern Engineering Works, Detroit,
Mich.
H. Obermayer Co., Cincinnati, O.
Pawling & Harnischfeger, Milwaukee, Wis.
Reading Crane & Hoist Works, Reading,
Pa.

J. G. Speidel, Reading, Pa.
Van Dorn Iron Works Co., Cleveland, O.
Whiting Foundry Equipment Co., Harvey,
Ill.
Yale & Towne Mfg. Co., 9 Murray St.,
New York.

MERCHANTS.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.
Wicks Bros., Saginaw, Mich.
Vandyck-Churchill Co., 8 Dey St., New
York.

Cranes, Hand Traveling—
Alliance Machine Co., Alliance, O.
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.
Boston Bridge Works, Boston, Mass.
Brown Hoisting Machinery Co., Cleveland,
Byram & Co., Inc., Detroit, Mich.
Case Mfg. Co., Columbus, O.
Chisholm & Moore Mfg. Co., Cleveland, O.
General Pneumatic Tool Co., Montour
Falls, N. Y.
Interstate Engineering Co., Bedford, O.
Franklin Moore Co., Winsted, Ct.
Morgan Construction Co., Worcester,
Mass.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Northern Engineering Works, Detroit,
Mich.
Pawling & Harnischfeger, Milwaukee,
Wis.
Reading Crane & Hoist Works, Reading,
Pa.
J. G. Speidel, Reading, Pa.
Whiting Foundry Equipment Co., Harvey,
Ill.
Yale & Towne Mfg. Co., 9 Murray St.,
New York.

MERCHANTS.
Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.
Vandyck-Churchill Co., 8 Dey St., N. Y.

Cranes, Hydraulic—
Alliance Machine Co., Alliance, O.
Chambersburg Engineering Co., Chambers-
burg, Pa.
Lewis Foundry & Machine Co., Groveton,
Pa.

Morgan Construction Co., Worcester,
Mass.
Morgan Engineering Co., Alliance, O.
S. Obermayer Co., Cincinnati, O.
Shaw Electric Crane Co., Muskegon, Mich.
United Engineering & Foundry Co., Pitts-
burgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.
Whiting Foundry Equipment Co., Harvey,
Ill.

R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.
Wright Wire Co., Worcester, Mass.

Cranes, Hydraulic Ingot and
Ladle—
Alliance Machine Co., Alliance, O.
Chambersburg Engineering Co., Chambers-
burg, Pa.

Morgan Engineering Co., Alliance, O.
Shaw Electric Crane Co., Muskegon, Mich.
Wellman-Seaver-Morgan Co., Cleveland.

Cranes, Hydraulic Jib—
Alliance Machine Co., Alliance, O.
Chambersburg Engineering Co., Chambers-
burg, Pa.
Morgan Construction Co., Worcester,
Mass.

Morgan Engineering Co., Alliance, O.
Shaw Electric Crane Co., Muskegon, Mich.
Whiting Foundry Equipment Co., Harvey,
Ill.

Cranes, Hydro-Pneumatic—
Morgan Engineering Co., Alliance, O.
Northern Engineering Works, Detroit,
Mich.

Cranes, Ice—
Northern Engineering Works, Detroit,
Mich.
Reading Crane & Hoist Works, Reading,
Pa.
Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Cranes, Ingot—
Case Mfg. Co., Columbus, O.
Cranes, Jib—
Alliance Machine Co., Alliance, O.
Boston Bridge Works, Boston, Mass.
Alfred Box & Co., Front & Poplar Sts.,
Philadelphia, Pa.
Brown Hoisting Machinery Co., Cleveland,
Byram & Co., Inc., Detroit, Mich.
Case Mfg. Co., Columbus, O.

Cleveland Crane & Car Co., Wickliffe, O.
General Pneumatic Tool Co., Montour Falls, N. Y.
Industrial Works, Bay City, Mich.
Interstate Engineering Co., Bedford, O.
Morgan Construction Co., Worcester, Mass.
Morgan Engineering Co., Alliance, O.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Niles-Bement-Pond Co., 111 Broadway, New York.
Northern Engineering Works, Detroit, Mich.
S. Obermayer Co., Cincinnati, O.
Pawling & Harnischfeger, Milwaukee, Wis.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
Reading Crane & Hoist Works, Reading, Pa.
Craig Ridgway & Son Co., Coatesville, Pa.
Hitter-Conley Mfg. Co., Pittsburgh, Pa.
J. G. Speidel, Reading, Pa.
Whiting Foundry Equipment Co., Harvey, Ill.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Yale & Towne Mfg. Co., 9 Murray St., New York.

MERCHANTS.
Carlin Machinery & Supply Co., Allegheny, Pa.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
Wickes Bros., Saginaw, Mich.

Cranes, Ladle—
Alliance Machine Co., Alliance, O.
Case Mfg. Co., Columbus, O.
Modern Steel Structural Co., Waukesha, Wis.
Morgan Engineering Co., Alliance, O.
Niles-Bement-Pond Co., 111 Broadway, New York.
Northern Engineering Works, Detroit, Mich.
Pawling & Harnischfeger, Milwaukee, Wis.
Shaw Electric Crane Co., Muskegon, Mich.
Wellman-Seaver-Morgan Co., Cleveland.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Cranes, Locomotive—
Brown Hoisting Machinery Co., Cleveland.
Browning Engineering Co., Cleveland, O.
Dodge Coal Storage Co., Hunting Park Ave. and P. & R. Ry., Philadelphia, Pa.
Industrial Works, Bay City, Mich.
Interstate Engineering Co., Bedford, O.
Link Belt Co., Inc., Philadelphia, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
Northern Engineering Works, Detroit, Mich.
Wellman-Seaver-Morgan Co., Cleveland.
Cranes, Locomotive Electric—
Link Belt Co., Inc., Philadelphia, Pa.

Cranes, Locomotive Water—
Sheffield Car Co., Three Rivers, Mich.

Cranes, Magnet—
Northern Engineering Works, Detroit, Mich.

Cranes, Ore and Coal Bucket—
Modern Steel Structural Co., Waukesha, Wis.

Cranes, Pillar—
Industrial Works, Bay City, Mich.
Interstate Engineering Co., Bedford, O.
Morgan Engineering Co., Alliance, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Shaw Electric Crane Co., Muskegon, Mich.

Cranes, Pneumatic
Brown Hoisting Machinery Co., Cleveland.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
General Pneumatic Tool Co., Montour Falls, N. Y.

Northern Engineering Works, Detroit, Mich.

Shaw Electric Crane Co., Muskegon, Mich.

MERCHANTS.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Edgar M. Moore & Co., Pittsburgh, Pa.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Cranes, Pneumatic Revolving—
Northern Engineering Works, Detroit, Mich.

Cranes, Portable Hand Power—
Brown Hoisting Machinery Co., Cleveland.
Franklin Portable Crane & Hoist Co., Franklin, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Wm. S. Nicholls, 251 Broadway, New York.
Niles-Bement-Pond Co., 111 Broadway, New York.
Northern Engineering Works, Detroit, Mich.

Reading Crane & Hoist Works, Reading, Pa.
Shaw Electric Crane Co., Muskegon, Mich.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Cranes, Railroad—
Browning Engineering Co., Cleveland, O.
Industrial Works, Bay City, Mich.
Interstate Engineering Co., Bedford, O.
Morgan Engineering Co., Alliance, O.
Northern Engineering Works, Detroit, Mich.

Wellman-Seaver-Morgan Co., Cleveland.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Cranes, Self Supporting.
Jib—
Northern Engineering Works, Detroit, Mich.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Cranes, Steam—
Interstate Engineering Co., Bedford, O.
Lewis Foundry & Machine Co., Groveton, Pa.

Link-Belt Co., Philadelphia, Pa.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Cranes, Steam-Hydraulic—
Morgan Construction Co., Worcester, Mass.

Craig Ridgway & Son Co., Coatesville, Pa.

Cranes, Traveling Hydraulic—
Chambersburg Engineering Co., Chambersburg, Pa.

Cranes, Traveling Jib—
Alliance Machine Co., Alliance, O.

Case Mfg. Co., Columbus, O.

Morgan Engineering Co., Alliance, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Cranes, Traveling, Power—
Alliance Machine Co., Alliance, O.

Boston Bridge Works, Boston, Mass.

Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Cleveland Crane & Car Co., Wickliffe, O.

General Pneumatic Tool Co., Montour Falls, N. Y.

Edwin Harrington, Son & Co. (Inc.), Philadelphia, Pa.

Lane Mfg. Co., Montpelier, Vt.

Morgan Engineering Co., Alliance, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pawling & Harnischfeger, Milwaukee, Wis.

Reading Crane & Hoist Works, Reading, Pa.

Craig Ridgway & Son Co., Coatesville, Pa.

Shaw Electric Crane Co., Muskegon, Mich.

J. D. Smith Foundry Supply Co., Cleveland, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Whiting Foundry Equipment Co., Harvey, Ill.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Edgar M. Moore & Co., Pittsburgh, Pa.

S. Obermayer Co., Cincinnati, O.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Cranes, Traveling Wall—
Case Mfg. Co., Columbus, O.

Cranes, Wrecking—
Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

Industrial Works, Bay City, Mich.

Interstate Engineering Co., Bedford, O.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Crank Boring Machines—
Niles-Bement-Pond Co., 111 Broadway, New York.

Crank Forgings—
Billings & Spencer Co., Hartford, Ct.

Crank Handles—
(See Handles, Grass Hook, &c.)

Crank Hangers, Bicycle—
(See Bicycle Parts.)

Crank Key Ejectors, Bicycle—
(See Ejectors, Bicycle Crank Key.)

Crank Pin Machines, Portable—
(See Ejectors, Bicycle Crank Key.)

Niles-Bement-Pond Co., 111 Broadway, New York.

Crank Pin Turning Machines—
Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Tindel-Morris Co., Eddystone, Pa.

H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.

Crank Pins, Shafts—
(See Pins, Shafts.)

Crank Planing Machines—
Niles-Bement-Pond Co., 111 Broadway, New York.

Crank Shafts, Welding of—
(See Welding, Electric.)

Cranes, Gas Engine—
Thomas Frosser & Son, 26 Platt St., N.Y.

Richmond Forging Corporation, Richmond, Va.

Tindel-Morris Co., Eddystone, Pa.

A. P. Wittman & Co., Philadelphia, Pa.

Crate Hasps—
(See Hasps, Crate.)

Crates, Shipping, Metal—
Evan L. Reed Mfg. Co., Sterling, Ill.

Crayons, Lumber, Marble, Metal Workers', &c.—
Jos. Dixon Crucible Co., Jersey City, N. J.

Walter A. Zelnicker Supply Co., St. Louis.

Crenslers, Blacksmiths—
Heller Bros. Co., Newark, N. J.

Creepers, Ice—
Geo. E. Gay, Augusta, Me.

Gifford-Wood Co., Arlington, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Union Hardware Co., Torrington, Ct.

Crematoriums—
Kiln & Chimney Construction Co., Brooklyn, N. Y.

Crematoriums, Garbage—
Power Specialty Co., 111 Broadway, N. Y.

S. R. Smythe Co., Pittsburgh, Pa.

Cresting Blocks—
(See Cresting, Sheet Metal.)

Crestings, Cast Iron—
(See Iron, Brass and Bronze, Ornamental.)

Crestings, Sheet Metal—
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Eller Mfg. Co., Canton, O.

Cribs, Corn, Wire Portable—
Rochelle Wire Mfg. Co., Rochelle, Ill.

Crimping Machines, Automatic, Wire—
Automatic Machine Co., Bridgeport, Ct.

Crimping Machines, Metal-

Adriance Machine Works, Brooklyn, N. Y.
Bertach & Co., Cambridge City, Ind.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., Hastings, Mich.
Ferracute Machine Co., Bridgeton, N. J.
Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
South Bend Machine Tool Co., South Bend, Ind.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Crimping Rolls-
(See Rolls, Crimping.)

Crooks, Shepherd's-
American Fork & Hoe Co., Cleveland, O.

Cross Arm Braces-
(See Telegraph and Telephone Supplies.)

Cross Arms-
(See Telegraph and Telephone Pole Supplies.)

Crosscut Saws-
(See Saws, Mill, Mulay, Crosscut, &c.)

Crossings, Railroad-
Armor Steel & Foundry Co., Matthews, Ind.

Indianapolis Switch & Frog Co., Springfield, O.
Ernst Wiener Co., Broad & Beaver Sts., New York.

Crossings, Sewer Gutter-
Enterprise Foundry & Fence Co., Indianapolis, Ind.

Crowfeet, Iron-
I. S. Spencer's Sons, Guilford, Ct.

Crowns, Bicycle-
(See Bicycle Parts.)

Crucibles and Dishes, Platinum-

Baker & Co., Inc., Newark, N. J.
J. Bishop & Co., Malvern, Pa.

Crucibles and Retorts-
Jos. Dixon Crucible Co., Jersey City, N. J.
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.

R. B. Seidel, Inc., 1334 Callowhill St., Philadelphia, Pa.
Waterbury Crucible Co., Waterbury, Ct.

MERCHANTS-
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Crumbers, Bread-
Goodell Co., Antrim, N. H.

Crusher Plates-
Armor Steel & Foundry Co., Matthews, Ind.

Chrome Steel Works, Chrome, N. J.
Keystone Steel Casting Co., Chester, Pa.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
Thomas Prosser & Son, 26 Platt St., N.Y.
Taylor Iron & Steel Co., High Bridge, N. J.

Crushers, Ore and Rock-
Armor Steel & Foundry Co., Matthews, Ind.

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
Thomas Carlin's Sons Co., Allegheny, Pa.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
Erdle Perforating Co., Rochester, N. Y.

Farrel Foundry & Machine Co., Ansonia, Ct.

George A. Hogg, I. & S. Foundry Co., Pittsburgh, Pa.

C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Co., Philadelphia, Pa.

Poole Engineering & Machine Co., Baltimore, Md.

Thomas Prosser & Son, 26 Platt St., N.Y.

United Engineering & Foundry Co., Pittsburgh, Pa.

Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.

Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS-
Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.

Edgar M. Moore & Co., Pittsburgh, Pa.

Wickes Bros., Saginaw, Mich.

Crushers, Ore and Rock-
Parts for-

Erdle Perforating Co., Rochester, N. Y.

Heidrick Mfg. Co., Carbondale, Pa.

Keystone Steel Casting Co., Chester, Pa.

Link-Belt Co., Philadelphia, Pa.

Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.

Thomas Prosser & Son, 26 Platt St., N.Y.

Taylor Iron & Steel Co., High Bridge, N. J.

Cryolite-
Vollkommer & Hagan, Pittsburgh, Pa.

Cube Head Bolts-
(See Bolts, Special.)

Culinary Baskets-
(See Kitchen Articles, Wire.)

Cultivators-

American Fork & Hoe Co., Cleveland, O.

Bateman Mfg. Co., Grenloch, N. J.

Cutaway Harrow Co., Higganum, Ct.

Keystone Farm Machine Co., York, Pa.

Long & Aistatter Co., Hamilton, O.

Syracuse Chilled Plow Co., Syracuse, N.Y.

Ulrich Mfg. Co., Rock Falls, Ill.

Whitman & Barnes Mfg. Co., Chicago.

Cup Holders-
(See Holders.)

Cup Hooks-
(See Hooks, Cup, Shoulder.)

Cupboard Bolts, Catches, &c-
(See Bolts, Catches, &c.)

Cupola Linings-
(See Linings, Cupola.)

Cupolas-

Byram & Co., Inc., Detroit, Mich.

Thomas Carlin's Sons Co., Allegheny, Pa.

J. Gilmour, Bennett Bldg., N. Y.

Meehan Boiler & Construction Co., Lowellville, O.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Whiting Foundry Equipment Co., Harvey, Ill.

Cupolas, Portable-
Northern Engineering Works, Detroit, Mich.

- Cups, Aluminum—**
Otto Konigslow Mfg. Co., Cleveland, O.
- Cups and Cones, Ball Bearing—**
Crosby Co., Buffalo, N. Y.
Hartford Machine Screw Co., Hartford.
H. A. Matthews Mfg. Co., Seymour, Ct.
- Cups and Shells, Drawn Steel—**
Globe Machine & Stamping Co., Cleveland, O.
Otto Konigslow Mfg. Co., Cleveland, O.
- Cups, Ball Cock—**
L. J. Barwood Co., Inc., Boston, Mass.
- Cups, Children's, Shaving, &c., Silver and Silver Plated—**
International Silver Co., Meriden, Ct.
- Cups, Drip, Shafting—**
Worcester Pressed Steel Co., Worcester, Mass.
- Cups, Elevator—**
(See Buckets and Cups.)
- Cups, Elevator Leather—**
Chas. L. Stevens & Co., Detroit, Mich.
- Cups, Grease—**
Charles H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.
- H. W. Caldwell & Son Co., Western Ave. & 17th St., Chicago, Ill.
- Erie Stamping & Mfg. Co., Erie, Pa.
- Lunkenheimer Co., Cincinnati, O.
- Wm. Powell Co., Cincinnati, O.
- Robins Conveying Belt Co., 17-22 Park Row, New York.
- Walworth Mfg. Co., Boston, Mass.
- Cups, Mill—**
W. J. Clark Co., Salem, O.
- Cups, Oil—**
Chas. H. Bealy Co., 10-15 Clinton St., Chicago, Ill.
- Erie Stamping & Mfg. Co., Erie, Pa.
- Eynon-Evans Mfg. Co., 1517 Clearfield St., Philadelphia, Pa.
- Hancock Inspirator Co., 85-89 Liberty St., New York.
- Lunkenheimer Company, Cincinnati, O.
- Walworth Mfg. Co., Boston, Mass.
- Cups, Shoemaker's Nail—**
Louis Sacks, Newark, N. J.
- Cups, Wax Melting—**
Wrightsville Hardware Co., Wrightsville, Pa.
- Curbs, Well—**
W. & B. Douglas, Middletown, Ct.
- Curled Hair—**
(See Hair, Curled.)
- Curling Sets—**
(See Sets.)
- Curry Combs—**
(See Combs, Curry.)
- Curtain and Upholstery Fixtures—**
Parker Wire Goods Co., Worcester, Mass.
- Wire Goods Co., Worcester, Mass.
- Curtain Pole Fixtures—**
Baker-McMillen Co., Akron, O.
- Curtain Rod Fixtures—**
Wire Goods Co., Worcester, Mass.
- Curtain Rods, Straps—**
(See Rods, Straps.)
- Cushions, Billiard and Pool Table—**
New York Belting & Packing Co., 91-93 Chambers St., New York.
- Cushions, Steel Wire—**
Parker Wire Goods Co., Worcester, Mass.
- Cuspidors—**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Bridgeport Brass Co., 253 B'way, N. Y.
S. Cheney & Son, Manlius, N. Y.
Riverside Metal Co., Riverside, N. J.
Stuart & Peterson Co., Burlington, N. J.
- Cutlery, Pocket—**
Hermann Boker & Co., 101-103 Duane St., New York.
John Chatillon & Sons, 85-93 Cliff St., N. Y.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Alfred Field & Co., 93 Chambers St., New York.
Adolph Kastor & Bros., 109 Duane St., New York.
- Northfield Knife Co., Northfield, Ct.
Waterville Cutlery Co., Waterville, Ct.
Wiebusch & Hilger, Ltd., 9 Murray St., New York.
- Cutlery, Silver Plated—**
American Cutlery Co., Chicago, Ill.
Goodell Co., Antrim, N. H.
- Cutlery, Table—**
American Cutlery Co., Chicago, Ill.
Alfred Field & Co., 93 Chambers St., New York.
Goodell Co., Antrim, N. H.
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
- Larders, Frary & Clark, New Britain, Ct.
- Charles Parker Co., Meriden, Ct.
- Cuts, Advertising—**
A. Mugford, Hartford, Ct.
- Cutter Blanks, Milling—**
Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.
- W. & S. Mfg. Co., Worcester, Mass.
- Cutter Blanks, Musher High Speed Milling—**
Samuel Osborn & Co., Boston, Mass.
- Cutter Grinding Machines—**
(See Grinding Machines, Cutter and Reamer.)
- Cutters, Alfalfa and Clover—**
Silver Mfg. Co., Salem, O.
- Cutters and Corers, Apple—**
Rollman Mfg. Co., Mt. Joy, Pa.
- Cutters, Angular Form, Inserted Tooth, Side Tap, &c.**
(See Cutters, Milling.)
- Cutters, Automatic Pinion—**
(See Pinion Cutters, Automatic.)
- Cutters, Axle—**
Badger State Machine Co., Janesville, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Butterfield & Co., Derby Line, Vt.
Fawcett Machine Co., Pittsburgh, Pa.
- Cutters, Bar—**
Badger State Machine Co., Janesville, Wis.
Buffalo Forge Co., Buffalo, N. Y.
C. S. Mersick & Co., New Haven, Ct.
Niagara Machine & Tool Works, Buffalo.
George A. Ohl & Co., Newark, N. J.
Henry Pels & Co., 66 Broad St., N. Y.
- Cutters, Boiler Tube—**
Fox Machine Co., Grand Rapids, Mich.
Samuelson's Sons, Yonkers, N. Y.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
- Cutters, Bolt—**
Acme Machinery Co., Cleveland, O.
Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.

Badger State Machine Co., Janesville, Wis.
 Boynton & Plummer, Worcester, Mass.
 Detrick & Harvey Mach. Co., Baltimore.
 Landis Machine Co., Waynesboro, Pa.
 Mummert, Wolf & Dixon Co., Hanover, Pa.

National Machinery Co., Tiffin, O.
 New Haven Mfg. Co., New Haven, Ct.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Pratt & Whitney Co., Hartford, Ct.
 E. F. Reese Co., Greenfield, Mass.
 Webster & Perks Tool Co., Springfield, O.
 Wells Bros. Co., Greenfield, Mass.
 Wiley & Russell Mfg. Co., Greenfield, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
 Hill, Clarke & Co., Boston, Mass.
 Machinists Supply Co., 16-18 So. Canal St., Chicago, Ill.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Marshall & Huchart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
 Vanduyck-Churchill Co., 8 Dey St., N. Y.
 A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 C. C. Wormer Machinery Co., Detroit, Mich.

Cutters, Bolt, Open Die—
 Wells Bros. Co., Greenfield, Mass.
Cutters, Butter—
 Cleveland Galvanizing Works, Cleveland.

Cutters, Button Hole—
 Eyelet Tool Co., Boston, Mass.
 R. Heinisch's Sons Co., Newark, N. J.
 Krauter & Co., Inc., Newark, N. J.
 National Cutlery Co., Philadelphia, Pa.
 J. Wiss & Sons Co., Newark, N. J.

Cutters, Cabbage—
 American Fork & Hoe Co., Cleveland, O.

Cutters, Chain Link—
 Brown & Sharpe Mfg. Co., Providence, R. I.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Cutters, Cigar—
 Billings & Spencer Co., Hartford, Ct.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cutters, Convex and Concave—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

More Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

Union Twist Drill Co., Athol, Mass.

Cutters, Cork, Cloth, Leather, Paper—

Henry Dickson & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Cutters, Diamond—
 J. L. Osgood, Buffalo, N. Y.

Cutters, Emery Wheel—
 (See Dressers, Emery Wheel.)

Cutters, Feed and Enslage—
 Alfred Field & Co., 93 Chambers St., New York.

Keystone Farm Machine Co., York, Pa.

Ney Mfg. Co., Canton, O.

Silver Mfg. Co., Salem, O.

Cutters, Flue, Pneumatic—
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Ingersoll-Rand Co., 11 Broadway, New York.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Cutters, Formed—
 (See Cutters, Milling.)

Cutters, Gang—
 (See Cutters, Milling.)

Cutters, Gear—
 (See Cutters, Milling, and also Gear Cutting Machines.)

Cutters, Glass—

W. L. Barrett, Bristol, Ct.

Fletcher, Terry & Co., Forestville, Ct.

Goodell-Pratt Co., Greenfield, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.

Millers Falls Co., 23 Warren St., N. Y.

Smith & Hemenway Co., 108-110 Duane St., New York.

Cutters, Glass, Diamond—
 Est. of John Dickinson, 64 Nassau St., New York.

Thos. L. Dickinson, 45 Vesey St., N. Y.

Smith & Hemenway Co., 108-110 Duane St., New York.

Cutters, Glass Tube—
 W. L. Barrett, Bristol, Ct.

Est. of John Dickinson, 64 Nassau St., New York.

Thos. L. Dickinson, 45 Vesey St., N. Y.

Lunkenheimer Co., Cincinnati, O.

Smith & Hemenway Co., 108-110 Duane St., New York.

Cutters, Grass—
 Smith & Hemenway Co., 108-110 Duane St., New York.

Cutters, Gummer—
 E. C. Atkins & Co., Indianapolis, Ind.

Butterfield & Co., Derby Line, Vt.

Cutters, Hand Power Bar—
 Henry Pels & Co., 26 Broad St., N. Y.

Cutters, Interlocking—
 (See Cutters, Milling.)

Cutters, Key Way—
 (See Key Way Machines.)

Cutters, Letter, Steel and Brass—

Schwerdtle Stamp Co., Bridgeport, Ct.

Cutters, Lock Corner—
 Henry Disston & Sons, Philadelphia, Pa.

Cutters, Meat, Food and Vegetable—

American Cutlery Co., Chicago, Ill.

E. C. Atkins & Co., Indianapolis, Ind.

John Chatillon & Sons, 85 Cliff St., N. Y.

Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

John H. Graham & Co., 113 Chambers St., New York.

Griswold Mfg. Co., Erie, Pa.

Landers, Frary & Clark, New Britain, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Hollman Mfg. Co., Mount Joy, Pa.
Russell & Erwin Mfg. Co., 43-47 Chambers St., New York.

Smith & Hemenway Co., 108-110 Duane St., New York.

Cutters, Milling—

American Die & Tool Co., Reading, Pa.
Becker-Brainerd Milling Machine Co., Hyde Park, Mass.

Boston Gear Works, Norfolk Downs, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.

Cleveland Twist Drill Co., Cleveland, O.
R. M. Clough, Tolland, Ct.

Garvin Machine Co., Spring and Varick Sts., New York.

Gould & Eberhardt, Newark, N. J.
Ingersoll Milling Machine Co., Rockford, Ill.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.
Sloan & Chace Mfg. Co., Ltd., Newark, N. J.

Standard Tool Co., Cleveland, O.
Union Twist Drill Co., Athol, Mass.

Whitaker Mfg. Co., Chicago, Ill.

Cutters, Paper—

Hobbs Mfg. Co., Worcester, Mass.

Cutters, Pipe and Tube—

American Die & Tool Co., Reading, Pa.
American Tube & Stamping Co., Bridgeport, Ct.

Barnes Tool Co., New Haven, Ct.
Bignall & Keeler Mfg. Co., Edwardsville, Ill.

Butterfield & Co., Derby Line, Vt.
Fox Machine Co., Grand Rapids, Mich.

National Machinery Co., Tiffin, O.
R. S. Newbold & Son Co., Norristown, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.
D. Saunders & Sons, Yonkers, N. Y.

Stoever Foundry & Mfg. Co., Lebanon, Pa.

Trimont Mfg. Co., Roxbury, Mass.
Walworth Mfg. Co., Boston, Mass.

F. E. Wells & Sons Co., Greenfield, Mass.

J. H. Williams & Co., Brooklyn, N. Y.

Cutters, Plug—

James Swan Co., Seymour, Ct.

Cutters, Pork Fat—

Bernard Gloekler Co., Pittsburgh, Pa.

Cutters, Potato—

Landers, Frary & Clark, New Britain, Ct.
Lollman Mfg. Co., Mt. Joy, Pa.

Cutters, Reamer and Twist Drill—

Brown & Sharpe Mfg. Co., Providence, R. I.

Pratt & Whitney Co., Hartford, Ct.
Standard Tool Co., Cleveland, O.

Union Twist Drill Co., Athol, Mass.
Walworth Mfg. Co., Boston, Mass.

Cutters, Rivet, Hand—

Kimball Bros. & Sprague, Brockton, Mass.

Cutters, Rivet, Power—

Kimball Bros. & Sprague, Brockton, Mass.

Cutters, Rod—

Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.

Badger State Machine Co., Janesville, Wis.
Helden Machine Co., New Haven, Ct.

Chandler & Farquhar Co., Boston, Mass.
C. S. Mersick & Co., New Haven, Ct.

Niagara Machine & Tool Works, Buffalo, Watson-Stillman Co., 28 Cortlandt St., New York.

Cutters, Roll Paper—

Evan L. Reed Mfg. Co., Sterling, Ill.

Cutters, Root, Vegetable—

Cutaway Harrow Co., Higganum, Ct.
Lane Bros. Co., Poughkeepsie, N. Y.

Silver Mfg. Co., Salem, O.
R. W. Whitehurst Co., Norfolk, Va.

Cutters, Screw Slotting—

(See Cutters, Milling.)

Cutters, Slaw, Kraut, &c.—

E. C. Atkins & Co., Indianapolis, Ind.
Henry Dieston & Sons, Philadelphia, Pa.

Landers, Frary & Clark, New Britain, Ct.
National Saw Co., Newark, N. J.

Cutters, Smoked Beef—

Coldwell Lawn Mower Co., Newburgh, N. Y.

Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Cutters, Sprocket Wheel—

Becker-Brainerd Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.
Standard Tool Co., Cleveland, O.

Union Twist Drill Co., Athol, Mass.

Cutters, Sprue—

Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.

Ferracute Machine Co., Bridgeton, N. J.
Hilles & Jones Co., Wilmington, Del.

Chas. Laffer & Co., Brooklyn, N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.

S. Obermayer Co., Cincinnati, O.
F. B. Shuster Co., New Haven, Ct.

J. D. Smith Foundry Supply Co., Cleveland, O.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Cutters, Stay Bolt—

Acme Machinery Co., Cleveland, O.
Landis Machine Co., Waynesboro, Pa.

National Machinery Co., Tiffin, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Stow Flexible Shaft Co., 25th & Callowhill Sts., Philadelphia, Pa.

Cutters, Stay Bolt, Pneumatic—

Helwig Mfg. Co., St. Paul, Minn.

Cutters, Stocking—

(See Cutters, Milling.)

Cutters, Storage Battery—

H. K. Porter, Everett, Mass.

Cutters, T Slot—

Becker-Brainerd Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.
Morse Twist Drill & Machine Co., New Bedford, Mass.

Standard Tool Co., Cleveland, O.
Union Twist Drill Co., Athol, Mass.

Cutters, Thistle or Weed-
American Fork & Hoe Co., Cleveland, O.

Cutters, Tobacco and Root-
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Griswold Mfg. Co., Erie, Pa.
Landers, Frary & Clark, New Britain, Ct.
North Bros. Mfg. Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Wrightsville Hardware Co., Wrightsville, Pa.

Cutters, Vegetable-
E. C. Atkins & Co., Indianapolis, Ind.
Henry Diston & Sons, Philadelphia, Pa.
Landers, Frary & Clark, New Britain, Ct.

Cutters, Wad-
Krauter & Co., Inc., Newark, N. J.

Cutters, Washer-
Goodell-Pratt Co., Greenfield, Mass.
Krauter & Co., Inc., Newark, N. J.
Smith & Hemenway Co., 108-110 Duane St., New York.

Otis A. Smith, Rockfall, Ct.
Tower & Lyon Co., 35 Chambers St., N.Y.

Cutters, Wire-
Billings & Spencer Co., Hartford, Ct.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Helwig Mfg. Co., St. Paul, Minn.
J. M. King & Co., Waterford, N. Y.
Niagara Machine & Tool Works, Buffalo, N.Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

H. K. Porter, Everett, Mass.
F. B. Shuster Co., New Haven, Ct.
J. D. Smith Foundry Supply Co., Cleveland, O.

(See also Pliers.)

Cutters, Wire Rope-
A. L. Henderer's Sons, Wilmington, Del.

Cutting and Straightening Machines, Wire-
(See Straightening and Cutting Machines, Wire.)

Cutting Attachments, Cam-
Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

Cutting Attachments, Rack-

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

Garvin Machine Co., Spring and Varick Sts., New York.

Cutting Dies, Nippers-
(See Dies, Nippers.)

Cutting Machines, Rack-

Mark Flather Planer Co., Nashua, N. H.
Gould & Eberhardt, Newark, N. J.

Niles-Bement-Pond Co., 111 Broadway, New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Cutting-Off and Centering Machines, Double, for Axles-

Fawcuss Machine Co., Pittsburgh, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Cutting-Off Machines-
E. C. Atkins & Co., Indianapolis, Ind.

Badger State Machine Co., Janesville, Wis.

Billings & Spencer Co., Hartford, Ct.

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

W. P. Davis Machine Co., Rochester, N. Y.

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Fawcuss Machine Co., Pittsburgh, Pa.

Hurlbut Rogers Machine Co., South Sudbury, Mass.

Niles-Bement-Pond Co., 111 Broadway, New York.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-29 Liberty St., New York.

Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

Vandyck-Churchill Co., 8 Dey St., N. Y.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit, Mich.

Cutting-Off Machines, Automatic-
Brown & Sharpe Mfg. Co., Providence, R. I.

Cutting-Off Machines, Cold Saw-

Burke Machinery Co., Cleveland, O.

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Morgan Engineering Co., Alliance, O.

Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-29 Liberty St., New York.

Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.

Edgar M. Moore & Co., Pittsburgh, Pa.

Motch & Merryweather Machinery Co., Cleveland, O.

Vandyck-Churchill Co., 8 Dey St., N. Y.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Cutting-Off Machines for Self Hardening Steel-

Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.

Cutting-Off Machines, Log-
Lane Mfg. Co., Montpelier, Vt.

Cutting-Off Tools-

Armstrong Bros. Tool Co., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Goodell Mfg. Co., Greenfield, Mass.

Pratt & Whitney Co., Hartford, Ct.

Dwight Slate Machine Co., Hartford, Ct.

Walworth Mfg. Co., Boston, Mass.

Cycle Hangers-
(See Hangers.)

Cycles-
(See Bicycles and Sundries.)

Cyclometers-
John H. Graham & Co., 113 Chambers St., New York.

Veeder Mfg. Co., Hartford, Ct.

Cylinder Head Turning Machine—

(See Turning Machines, Cylinder Head.)

Cylinders, Ammonia and Carbonic Acid—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

Meehan Boiler & Construction Co., Lowellville, O.

National Tube Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

Cylinders, Deep Well—

American Steam Pump Co., Battle Creek, Mich.

American Well Works, Aurora, Ill.

W. & B. Douglas, Middletown, Ct.

F. E. Myers & Bro., Ashland, O.

Cylinders, Emery and Corundum—

Monarch Emery & Corundum Wheel Co., Camden, N. J.

Cylinders, Hydro - Pneumatic—

F. E. Myers & Bro., Ashland, O.

Cylinders, Irrigation—

Mast, Foss & Co., Springfield, O.

F. E. Myers & Bro., Ashland, O.

Cylinders, Pump—

(See Well Supplies and Tools.)

Cylinders, Steel—

Avery Stamping Co., Cleveland, O.

A. D. Granger Co., West St. Bldg., N. Y.

Meehan Boiler & Construction Co., Lowellville, O.

National Tube Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

Standard Welding Co., Cleveland, O.

D Tops for Handles—

(See Tops, Malleable D Handle.)

Damper Clips, Regulators—

(See Clips, Regulators.)

Dampers, Pipe—

American Blower Co., Detroit, Mich.

Arcaide Mfg. Co., Freeport, Ill.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

S. Cheney & Son, Manlius, N. Y.

Fanner Mfg. Co., Cleveland, O.

Griswold Mfg. Co., Erie, Pa.

S. M. Howe Co., Boston, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Susquehanna Casting Co., Wrightsville, Pa.

Taylor & Boggis Foundry Co., Cleveland.

Wrightsville Hardware Co., Wrightsville, Pa.

Dandy Rolls—

(See Rolls, Dandy.)

Darners, Glove and Stocking—

Baker-McMillen Co., Akron, O.

Dashes and Fenders, Carriage, Automobile, &c.—

McKinnon Dash Co., Buffalo, N. Y.

Dashes, Screen—

Erdle Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 221 No. Union St., Chicago, Ill.

Charles Mundt & Sons, 441-447 Pearl St., New York.

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Daters—

(See Stamps, Dating.)

Daubers, Shoe—

Killbourne Mfg. Co., Troy, N. Y.

Dead Eyes—

(See Eyes, Dead, Bull's, &c.)

Deck Blocks, Lights, &c.—

(See Blocks, Lights, &c.)

Deck Molding—

(See Architectural Sheet Metal Work.)

Deckhanger Bolts—

(See Bolts, Special.)

Dehorning Saws—

(See Saws, Dehorning.)

Delivery Wagons—

(See Wagons, Delivery.)

Dental Shears and Snips—

(See Shears and Snips, Dental.)

Dental Wheels—

(See Wheels, Dental.)

Dentils—

(See Cornice, &c.; Galvanized Iron.)

Depth Gauges—

(See Gauges, Depth.)

Derricks and Derrick Fittings—

Broderick & Bascom Rope Co., St. Louis.

Browning Engineering Co., Cleveland, O.

Thomas Carlin's Sons, Allegheny, Pa.

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

Interstate Engineering Co., Bedford, O.

Lane Mfg. Co., Montpelier, Vt.

A. Leschen & Sons Rope Co., St. Louis.

Lidgerwood Mfg. Co., 96 Liberty St., New York.

Modern Steel Structural Co., Waukesha, Wis.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Northern Engineering Works, Detroit, Mich.

Reading Crane & Hoist Works, Reading, Pa.

Walter A. Zelnicker Supply Co., St. Louis.

MERCHANTS.

Irrving Mfg. & Tool Co., 157 Chambers St., New York.

S. Obermayer Co., Cincinnati, O.

Derricks, Steel—

American Bridge Co. of New York, 42 Broadway, New York.

Interstate Engineering Co., Bedford, O.

Modern Steel Structural Co., Waukesha, Wis.

Desk Slides—

(See Slides, Desk.)

Desk Specialties, Silver and Silver Plated (Inkstands, Calendars, Pen Wipers, Paper Files, &c.)—

International Silver Co., Meriden, Ct.

Diamond Emery Wheel Dressers—

(See Dressers, Emery Wheel.)

Diamond Points—

(See Points.)

Diamond Tools—

(See Tools, Diamond.)

Diamonds, Black—

J. L. Osgood, Buffalo, N. Y.

Diamonds, Glaziers'—

(See Cutters, Glass, Diamond.)

Diaphragms, Leather—

Graton & Knight Mfg. Co., Worcester, Mass.

Diaphragms, Phosphor-Bronze—

N. Y. Washer & Gasket Co., Brooklyn, N. Y.
U. S. Indestructible Gasket Co., 16 So. William St., New York.

Diaphragms, Rubber—

New York Belting & Packing Co., 91-93 Chambers St., New York.

Die Blocks—

American Die & Tool Co., Reading, Pa.
Bethlehem Steel Co., So. Bethlehem, Pa.
Colonial Steel Co., Pittsburgh, Pa.
Crucible Steel Casting Co., Lansdowne, Pa.
Heppenstall Forge & Knife Co., Pittsburgh, Pa.

Lebanon Steel Casting Co., Lebanon, Pa.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
Pratt & Whitney Co., Hartford, Ct.
Tindel-Morris Co., Eddystone, Pa.

A. P. Witteman & Co., Philadelphia, Pa.

Die Grinders, Surface—

(See Grinders.)

Die Heads, Screw Cutting—

Acme Machinery Co., Cleveland, O.
Geometric Tool Co., New Haven, Ct.
Jones & Lamson Machine Co., Springfield, Vt.
National Machinery Co., Tiffin, O.
Pratt & Whitney Co., Hartford, Ct.

Die Holders, for Screw Machines—

Brown & Sharpe Mfg. Co., Providence, R. I.

Die Holders, Plate—

(See Holders, Plates.)

Die Sinkers—

Adriance Machine Works, Brooklyn, N. Y.
American Die & Tool Co., Reading, Pa.
American Tube & Stamping Co., Bridgeport, Ct.

Billings & Spencer Co., Hartford, Ct.
Blake & Johnson Co., Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Bossert Electric Construction Co., Utica, N. Y.

E. D. Clapp Mfg. Co., Auburn, N. Y.
Cleveland Drop Forging Co., Cleveland, O.
Eastern Machine & Stamping Co., Providence, R. I.

Ferracute Machine Co., Bridgeton, N. J.
Globe Machine & Stamping Co., Cleveland, O.

Hay-Budden Mfg. Co., Brooklyn, N. Y.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
John R. Keim Mills, Inc., Buffalo, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
W. B. Knight Machinery Co., St. Louis, Mo.

E. Konigsloew Stamping & Tool Works, Cleveland, O.

Otto Konigsloew Mfg. Co., Cleveland, O.
Chas. Leffler & Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo, N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.

O. K. Tool Holder Co., Shelton, Ct.
Pratt & Whitney Co., Hartford, Ct.
Richard Mfg. Co., Bloomsburg, Pa.

Risdon Tool Works, Inc., Waterbury, Ct.
Schatz Hardware Mfg. Co., Chappaqua, New York.

Schwerdtle Stamp Co., Bridgeport, Ct.

M. I. Smith, Bristol, Ct.

Geo. A. Smith Co., Worcester, Mass.
Thomas Smith Co., Worcester, Mass.
V. & O. Press Co., Brooklyn, N. Y.
W. & S. Mfg. Co., Worcester, Mass.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Wheeling Mold & Foundry Co., Wheeling, W. Va.

Die Sinkers' Vises—

(See Vises.)

Die Sinking—

(See Die Sinkers.)

Die Sinking Machines—

Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Die Stocks, Adjustable—

Bignall & Keeler Mfg. Co., Edwardsville, Ill.

Butterfield & Co., Derby Line, Vt.
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Hart Mfg. Co., Cleveland, O.

A. J. Smart Mfg. Co., Greenfield, Mass.

Die Stocks, Ratchet—

Hart Mfg. Co., Cleveland, O.
Pratt & Whitney Co., Hartford, Ct.
Walworth Mfg. Co., Boston, Mass.

Dies, Adjustable—

Adriance Machine Works, Brooklyn, N. Y.
Butterfield & Co., Derby Line, Vt.
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.
Wells Bros. Co., Greenfield, Mass.

Dies, Adjustable, Expanding—

Acme Machinery Co., Cleveland, O.
Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Ferracute Machine Co., Bridgeton, N. J.
Hartford Machine Screw Co., Hartford, Ct.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Landis Machine Co., Waynesboro, Pa.
Frank Mossberg Co., Attleboro, Mass.

National Machinery Co., Tiffin, O.
Pratt & Whitney Co., Hartford, Ct.
E. F. Reece Co., Greenfield, Mass.

D. Saunders' Sons, Yonkers, N. Y.
Wells Bros. Co., Greenfield, Mass.

Dies and Stamps, Steel—

(See Stamps and Dies, Steel.)

Dies and Taps—

(See Stocks, Taps and Dies.)

Dies, Automatic—

Adriance Machine Works, Brooklyn, N. Y.
Hart Machine Co., Oakville, Ct.
E. W. Bliss Co., Brooklyn, N. Y.

Ferracute Machine Co., Bridgeton, N. J.
Geometric Tool Co., New Haven, Ct.

Globe Machine & Stamping Co., Cleveland, O.

Hartford Machine Screw Co., Hartford, Ct.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Jones & Lamson Machine Co., Springfield, Vt.
Chas. Leffler & Co., Brooklyn, N. Y.

Metal Specialties Mfg. Co., New York, N. Y.
Frank Mossberg Co., Attleboro, Mass.
E. B. Thompson Co., 31 Spruce St., N. Y.
Fred J. Swaine Co., St. Louis, Mo.

V. & O. Press Co., Brooklyn, N. Y.

Dies, Box Printing—

August Becker Engraving Co., Boston, Mass.

Dies, Chilled Cast Wire—

Philadelphia Roll & Machine Co., 23d St., & Washington Ave., Philadelphia.

Dies, Clay Working—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Dies, Cutting—

Adriance Machine Works, Brooklyn, N. Y. Advance Mfg. Co., Racine Junction, Wis.

American Die & Tool Co., Reading, Pa.

Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Butterfield & Co., Derby Line, Vt.

J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Cleveland Punch & Shear Works Co., Cleveland, O.

Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.

Gem Mfg. Co., Pittsburgh, Pa.

Globe Machine & Stamping Co., Cleveland, O.

Hartford Machine Screw Co., Hartford, Ct.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.

Hoggson & Pettis Mfg. Co., New Haven, Ct.

Kilborn & Bishop Co., New Haven, Ct.

Otto Konigslow Mfg. Co., Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.

Metal Specialties Mfg. Co., Chicago, Ill.

Frank Mossberg Co., Attleboro, Mass.

Niagara Machine & Tool Works, Buffalo, N. Y.

Pratt & Whitney Co., Hartford, Ct.

E. P. Reace, Greenfield, Mass.

Richard Mfg. Co., Bloomsburg, Pa.

Risdon Tool Works, Inc., Waterbury, Ct.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Standard Tool Co., Cleveland, O.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Fred J. Swaine Co., St. Louis, Mo.

V. & O. Press Co., Brooklyn, N. Y.

W. & S. Mfg. Co., Worcester, Mass.

Webster & Perks Tool Co., Springfield, O.

F. E. Wells & Sons Co., Greenfield, Mass.

Wells Bros. Co., Greenfield, Mass.

L. & I. J. White Co., Buffalo, N. Y.

Dies, Drop Forging—

Cleveland Drop Forging Co., Cleveland, O.

Dies, Embossing—

(See Stamps and Dies, Steel.)

Dies for Metal Ceiling Work—

E. W. Bliss Co., Brooklyn, N. Y.

Ferracute Machine Co., Bridgeton, N. J.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Dies, Opening—

Acme Machinery Co., Cleveland, O.

Butterfield & Co., Derby Line, Vt.

Geometric Tool Co., New Haven, Ct.

Hartford Machine Screw Co., Hartford, Ct.

Landis Machine Co., Waynesboro, Pa.

Pratt & Whitney Co., Hartford, Ct.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Dies, Pump Rod—

Wells Bros. Co., Greenfield, Mass.

Dies, Punching—

Adriance Machine Works, Brooklyn, N. Y.

Advance Mfg. Co., Racine Junction, Wis.

American Die & Tool Co., Reading, Pa.

Badger State Machine Co., Janesville, Wis.

Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Cleveland Punch & Shear Works Co., Cleveland, O.

Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.

Gem Mfg. Co., Pittsburgh, Pa.

Globe Machine & Stamping Co., Cleveland, O.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

E. Konigslow Stamping & Tool Works, Cleveland, O.

Otto Konigslow Mfg. Co., Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Metal Specialties Mfg. Co., Chicago, Ill.

Frank Mossberg Co., Attleboro, Mass.

New Duty Mfg. Co., Janesville, Wis.

New York Washer & Gasket Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.

Risdon Tool Works, Inc., Waterbury, Ct.

Robinson Tool Works, Waterbury, Ct.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Sloan & Chace Mfg. Co., Ltd., Newark, N. J.

Geo. A. Smith Co., Worcester, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Fred J. Swaine Co., St. Louis, Mo.

U. S. Indestructible Gasket Co., 16 S. William St., New York.

V. & O. Press Co., Brooklyn, N. Y.

W. & S. Mfg. Co., Worcester, Mass.

Waltham Machine Works, Waltham, Mass.

Worcester Pressed Steel Co., Worcester, Mass.

Dies, Screw Plate—

(See Stocks, Taps and Dies.)

Dies, Self Opening—

Acme Machinery Co., Cleveland, O.

Landis Machine Co., Waynesboro, Pa.

National Machinery Co., Tiffin, O.

Dies, Sheet Metal Working—

Adriance Machine Works, Brooklyn, N. Y.

Advance Mfg. Co., Racine Junction, Wis.

American Die & Tool Co., Reading, Pa.

Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Bossert Electric Construction Co., Utica, N. Y.

Cleveland Punch & Shear Works Co., Cleveland, O.

Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.

Gem Mfg. Co., Pittsburgh, Pa.

Globe Machine & Stamping Co., Cleveland, O.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

Otto Konigslow Mfg. Co., Cleveland, O.

Chas. Leffler & Co., Brooklyn, N. Y.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Metal Specialties Mfg. Co., Chicago, Ill.
Frank Mossberg Co., Attleboro, Mass.
Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.

Geo. A. Ohl & Co., Newark, N. J.
Ridson Tool Works, Inc., Waterbury, Ct.
Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Sloan & Chace Mfg. Co., Ltd., Newark, N. J.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Fred J. Swaine Co., St. Louis, Mo.
V. & O. Press Co., Brooklyn, N. Y.

Worcester Pressed Steel Co., Worcester, Mass.

Dies, Shipyard—

(See Punches and Dies.)

Dies, Solid Bolt—

Butterfield & Co., Derby Line, Vt.
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Standard Tool Co., Cleveland, O.
Wells Bros. Co., Greenfield, Mass.

Dies, Solid Pipe—

Butterfield & Co., Derby Line, Vt.
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.
D. Saunders Sons, Yonkers, N. Y.

Standard Tool Co., Cleveland, O.
Walworth Mfg. Co., Boston, Mass.

Wells Bros. Co., Greenfield, Mass.

Dies, Stamping—

Adriance Machine Works, Brooklyn, N. Y.
American Die & Tool Co., Reading, Pa.

Avery Stamping Co., Cleveland, O.
Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.

Basert Electric Construction Co., Utica, N. Y.

Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.
Gem Mfg. Co., Pittsburgh, Pa.

Globe Machine & Stamping Co., Cleveland, O.

W. H. Hubbard Mfg. Co., Brooklyn, N. Y.
Kilborn & Bishop Co., New Haven, Ct.

E. Konigsow Stamping & Tool Works, Cleveland, O.

Otto Konigsow Mfg. Co., Cleveland, O.
Chas. Lettier & Co., Brooklyn, N. Y.

Metal Specialties Mfg. Co., Chicago, Ill.
Frank Mossberg Co., Attleboro, Mass.

Niagara Machine & Tool Works, Buffalo, N. Y.

Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.

Richard Mfg. Co., Bloomsburg, Pa.
Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Sloan & Chace Mfg. Co., Ltd., Newark, N. J.

Geo. A. Smith Co., Worcester, Mass.
Thomas Smith Co., Worcester, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Fred J. Swaine Co., St. Louis, Mo.

V. & O. Press Co., Brooklyn, N. Y.
W. & S. Mfg. Co., Worcester, Mass.

Dies, Stencil Cutting—

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Schwerdtle Stamp Co., Bridgeport, Ct.

Dies, Sub-Press—

Sloan & Chace Mfg. Co., Ltd., Newark, N. J.

Waltham Machine Works, Waltham, Mass.

Dies, Thread Cutting—

(See Stocks, Taps, Dies.)

Dies, Threading—

American Die & Tool Co., Reading, Pa.

Dies, Welding—

P. F. Burke, Boston, Mass.

Dies, Wiring—

E. W. Bliss Co., Brooklyn, N. Y.
Ferracute Machine Co., Bridgeton, N. J.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Otto Konigsow Mfg. Co., Cleveland, O.

Differential Pulley Blocks—

(See Blocks, Differential Pulley.)

Digesters, Pulp—

Petroleum Iron Works Co., Sharon, Pa.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Diggers, Peanut—

Bateman Mfg. Co., Grenloch, N. J.

Diggers, Post Hole—

Avery Stamping Co., Cleveland, O.
Henry Disston & Sons, Philadelphia, Pa.

Hubbard & Co., Pittsburgh, Pa.
Iwan Bros., Streator, Ill.

F. E. Kohler & Co., Canton, O.
(See also Augers, Post Hole.)

Diggers, Potato—

American Fork & Hoe Co., Cleveland, O.
Bateman Mfg. Co., Grenloch, N. J.

Keston Farm Machine Co., York, Pa.

Dimension Gauges—

(See Gauges, Dimension.)

Dinner Casters—

(See Casters, Silver Plated.)

Dippers and Skimmers, Lard—

Sturges & Burn Mfg. Co., Chicago, Ill.
Dippers, Melting Metal—

W. J. Clark Co., Salem, O.

Disc Notching Machines—

(See Notching Machines, Armature Disc.)

Disc Slotting Machines—

(See Slotting Machines, Automatic Disc.)

Discs, Armature—

Avery Stamping Co., Cleveland, O.
Hendrick Mfg. Co., Carbondale, Pa.

Otto Konigsow Mfg. Co., Cleveland, O.
National Tube Co., Pittsburgh, Pa.

W. & S. Mfg. Co., Worcester, Mass.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Discs for Grinders—

Gardner Machine Co., Beloit, Wis.

Discs, Hot or Cold Iron Cutting—

Henry Disston & Sons, Philadelphia, Pa.

Discs, Phosphor-Bronze—

N. Y. Washer & Gasket Co., Brooklyn, N. Y.

U. S. Indestructible Gasket Co., 16 So. William St., New York.

Discs, Rubber—

(See Gaskets and Rings, Rubber.)

Discs, Standard Reference—

Brown & Sharpe Mfg. Co., Providence, R. I.

Discs, Steel—

W. J. Clark Co., Salem, O.

Dishes, Valve—

Jenkins Bros., 71 John St., New York.
 Lunkenheimer Co., Cincinnati, O.
 New York Belting & Packing Co., 91-93
 Chambers St., New York.
 New York Washer & Gasket Co., Brook-
 lyn, N. Y.
 U. S. Indestructible Gasket Co., 16 S.
 William St., New York.
 Walworth Mfg. Co., Boston, Mass.

Dish Drainers—

(See Drainers, Kitchen Articles.)

Dishers, Ice Cream—

Erie Specialty Co., Erie, Pa.
 Mosteller Mfg. Co., 79 Dearborn St., Chi-
 cago, Ill.

**Dishes, Berry, Bon Bon,
Butter, Fruit, Meat, &c.,
Silver and Silver Plated—**

International Silver Co., Meriden, Ct.
Dishes, Chafing—
 Goodwin & Kintz Co., Winsted, Ct.
 International Silver Co., Meriden, Ct.
 Lalance & Grosjean Mfg. Co., 299 Broad-
 way, New York.

Dishes, Chafing, Electric—

General Electric Co., Schenectady, N. Y.

Dishes, Fern, Silver Plated—

International Silver Co., Meriden, Ct.

Dishes, Soap—

Columbia Grey Iron Co., Columbia, Pa.
 Reading Hardware Co., Reading, Pa.
 Wrightsville Hardware Co., Wrightsville,
 Pa.

Dispensers, Factory—

Delphos Mfg. Co., Delphos, O.

Dispensers, Liquid Soap—

Charles McGill, 27 Broadway, New York.

Distilling Apparatus—

E. B. Badger & Sons Co., Boston, Mass.

Distributors, Fertilizers—

R. W. Whitehurst Co., Norfolk, Va.

**Divider Pencil Attach-
ments—**

(See Pencil Attachments, Divider.)

Dividers, Angle—

Stanley Rule & Level Co., New Britain,
 Ct.

Dividers, Compasses, &c.—

(See Compasses, Dividers, &c.)

Dividing Heads—

(See Heads, Dividing, Indexing.)

Dock Spikes—

(See Spikes, Dock, Wharf, &c.)

Document Boxes—

(See Boxes, Document.)

Dog Calls, Chain—

(See Calls, Chain.)

Dog Furnishings—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Union Hardware Co., Torrington, Ct.

Wire Goods Co., Worcester, Mass.

Dogs, Bolt—

Wm. G. Le Count, East Norwalk, Ct.

Dogs, Clamp—

Armstrong Bros. Tool Co., 617-621 Austin
 Ave., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Wm. G. Le Count, East Norwalk, Ct.

Dogs, Lathe—

Armstrong Bros. Tool Co., 617-621 Austin
 Ave., Chicago, Ill.

Chas. H. Besly & Co., 15-21 Clinton St.,
 Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Wm. G. Le Count, East Norwalk, Ct.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

O. K. Tool Holder Co., Shelton, Ct.

Richmond Forgings Corporation, Rich-
 mond, Va.

Western Tool & Mfg. Co., Springfield, O.

J. H. Williams & Co., Brooklyn, N. Y.

Dogs, Milling Machine—

J. H. Williams & Co., Brooklyn, N. Y.

Dogs, Ring and Chain—

Standard Chain Co., Pittsburgh, Pa.

Trow & Holden, Barre, Vt.

Dogs, Saw Mill—

E. C. Atkins & Co., Indianapolis, Ind.

Howard Iron & Tool Co., Bellefonte, Pa.

Soule Steam Feed Works, Meridian, Miss.

Walter A. Zelnicker Supply Co., St. Louis.

Dollies, Timber—

Chase Foundry & Mfg. Co., Columbus, O.

City Forge & Iron Works, Dayton, O.

Peter Gerlach Co., Cleveland, O.

Kilbourne & Jacobs Mfg. Co., Colum-
 bus, O.

Soule Steam Feed Works, Meridian, Miss.

Standard Scale & Supply Co., Pittsburgh.

Domes for Observatories—

W. N. Kratzer & Co., Pittsburgh, Pa.

Door Bell Handles—

(See Handles, Door Bell.)

**Door Bells, Bolts, Checks,
&c.—**

(See Bells, Bolts, Checks, &c.)

Door Mats, Wire and Steel—

(See Mats, Wire and Steel.)

Door Plates—

(See Plates, Door.)

**Doors and Shutters, Iron
and Steel—**

Anchor Post Iron Works, 42 Park Row,
 New York.

Bethlehem Foundry & Machine Co., South
 Bethlehem, Pa.

Forest City Steel & Iron Co., Cleveland.

Glen Mfg. Co., Ellwood City, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

George A. Ohl & Co., Newark, N. J.

Stewart Iron Works Co., Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

Doors, Ash Pit—

(See Iron Work, Builders.)

Doors, Automatic Hatch—

Morse, Williams & Co., 1105 Frankford
 Ave., Philadelphia, Pa.

Salem Elevator Works, Salem, Mass.

Warsaw Elevator Co., Warsaw, N. Y.

Doors, Bronze—

Glen Mfg. Co., Ellwood City, Pa.

Doors, Cold Storage—

Bernard Glocker Co., Pittsburgh, Pa.

Doors, Core Oven—

Bethlehem Foundry & Machine Co., So.
 Bethlehem, Pa.

Doors, Screen—

Edward Darby & Sons, 233-235 Arch St.,
 Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

Doors, Screen, to order—

Phoenix Mfg. Co., Milwaukee, Wis.

Doors, Vault—

(See Vaults, Fire and Burglar Proof.)

Doors, Wire and Iron—

Buffalo Wire Works Co., Inc., Buffalo,
 N. Y.

Dormant Scales—

(See Scales, Dormant.)

Double Pointed Tacks—

(See Tacks, Double Pointed.)

- Doubling Machines—**
United Engineering & Foundry Co., Pittsburgh, Pa.
- Dowel Pins and Screws—**
(See Pins, Dowel.)
- Dowel Tools—**
(See Tools, Dowel, Pin, &c.)
- Dowels—**
Cleveland Galvanizing Works, Cleveland, O.
W. B. Hartigan, Collinsville, Ct.
Mathew Lanz & Sons, Pittsburgh, Pa.
Nictown Plate Washer Co., 1822-50 W. Juniata St., Philadelphia, Pa.
Oliver Machinery Co., Grand Rapids, Mich.
Parker Wire Goods Co., Worcester, Mass.
H. A. Stiles & Co., Boston, Mass.
Wire Goods Co., Worcester, Mass.
- Dowels, Hand Rail—**
(See Screws, Hand Rail.)
- Dowels, Trunk—**
J. H. Sessions & Son, Bristol, Ct.
- Draft, Forced and Exhaust. Apparatus—**
American Blower Co., Detroit, Mich.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Massachusetts Fan Co., Watertown, Mass.
B. F. Sturtevant Co., Boston, Mass.
- Draft, Mechanical Plants for—**
American Blower Co., Detroit, Mich.
Boston Blower Co., Hyde Park, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Exeter Machine Works, Exeter, N. H.
Massachusetts Fan Co., Watertown, Mass.
B. F. Sturtevant Co., Boston, Mass.
- Drafting, Mechanical—**
Joseph Merritt, Hartford, Ct.
- Draft Rigging—**
American Steel Foundries, 42 Broadway, New York.
- Drafting Room Furniture—**
(See Furniture, Drafting Room.)
- Draftsman's Scales—**
(See Scales, Draftsman's.)
- Draftsmen's Supplies—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Drag Saws—**
(See Saws, Mill, Mulay, &c.)
- Drain and Ditching Soudes—**
(See Shovels and Spades, Tiling or Ditching.)
- Drainers, Cellar—**
Julian D'Este Co., Boston, Mass.
- Drainers, Dish—**
Andrews Wiro & Iron Works, Rockford, Ill.
- Kilbourne Mfg. Co., Troy, N. Y.**
Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.
- Draw Bench Products—**
Boston Pressed Metal Co., Worcester, Mass.
- Draw Benches—**
W. J. Clark Co., Salem, O.
Falls Rivet & Machine Co., Cuyahoga Falls, O.
Gould & Eberhardt, Newark, N. J.
Morgan Construction Co., Worcester, Mass.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
George A. Ohl & Co., Newark, N. J.
Richard Mfg. Co., Bloomsburg, Pa.
Hugh L. Thompson, Waterbury, Ct.
- Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Waterbury, Farrel Foundry & Machine Co., Waterbury, Ct.
Watson-Stillman Co., 26 Cortlandt St., New York.
Wright Wire Co., Worcester, Mass.
- Draw Benches, Continuous—**
Morgan Construction Co., Worcester, Mass.
- Draw Benches, Hydraulic—**
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Watson-Stillman Co., 26 Cortlandt St., New York.
- Drawer Handles, Knobs, Pulls—**
(See Handles, Knobs, Pulls.)
- Drawers, Shelf—**
(See Boxes, Shelf.)
- Drawheads, Car—**
Atlas Car & Mfg. Co., Cleveland, O.
- Drawing Knives, Presses—**
(See Knives, Presses.)
- Drawing Machinery, Wire—**
(See Draw Benches.)
- Drawing Materials—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Dredging Machinery—**
Broderick & Bascom Rope Co., St. Louis.
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
A. Leschen & Sons Rope Co., St. Louis.
Taylor Iron & Steel Co., High Bridge, N. J.
Vulcan Iron Works, 28 No. Irving, Ave., Chicago, Ill.
Wellman-Seaver-Morgan Co., Cleveland, O.
- Dressers, Diamond—**
J. L. Osgood, Buffalo, N. Y.
- Dressers, Emery Wheel—**
Abrasive Material Co., Philadelphia, Pa.
American Emery Wheel Works, Providence, R. I.
E. C. Atkins & Co., Indianapolis, Ind.
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Builders' Iron Foundry, Providence, R. I.
George H. Calder, Lancaster, Pa.
Chicago Screw Co., 2 No. Canal St., Chicago, Ill.
Diamond Machine Co., Providence, R. I.
Diamond Saw & Stamping Works, Buffalo, N. Y.
Est. of John Dickinson, 61 Nassau St., New York.
Thos. L. Dickinson, 45 Vesey St., N. Y.
Heald Machine Co., Worcester, Mass.
Northampton Emery Wheel Co., Leeds, Mass.
- Norton Grinding Co., Worcester, Mass.
J. L. Osgood, Buffalo, N. Y.
Standard Tool Co., Cleveland, O.
Star Corundum Wheel Co., Detroit, Mich.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Superior Corundum Wheel Co., Waltham, Mass.
- Vitrified Wheel Co., Westfield, Mass.
Worcester Pressed Steel Co., Worcester, Mass.
- Zucker & Lerett & Loeb Co., 526-530 W. 25th St., New York.
- Dressers, Pneumatic Stone—**
E. W. Bliss Co., Brooklyn, N. Y.
Chicago Pneumatic Tool Co., Wabash Bldg., Chicago, Ill.
- Dressing, Belt—**
(See Belt Dressing.)

Dressing, Rope—

Broderick & Bascom Rope Co., St. Louis.
 Judice Mfg. Co., Milwaukee, Ind.
 C. W. Hunt Co., West New Brighton,
 N. Y.

A. Leschen & Sons Rope Co., St. Louis.

Drill and Clamp, Combined—

(See Clamp and Drill, Combined.)

Drill, Anvil and Vise—

(See Vise, Drill and Anvil.)

Drill Attachments, Vise—

Goodell-Pratt Co., Greenfield, Mass.

Prentiss Vise Co., 44 Barclay St., N. Y.

Drill Cases, Chucks, &c.—

(See Cases, Chucks, &c.)

Drill, Fertilizer, Hand—

Bateman Mfg. Co., Greenloch, N. J.

Drill Grinding Machines.

(See Milling and Drilling Machines.)

Drill Grinding Machines.

Twist—
 (See Grinders, Drill.)

Drill Sockets—

(See Sockets, Drill.)

Drilling and Milling Ma-

chines, Combined—

W. B. Knight Machinery Co., St. Louis.

Mo.

Lucas Machine Tool Co., Cleveland, O.

Drilling Machines—**MERCHANTS.**

Baird Machinery Co., Pittsburgh, Pa.

W. R. Beatty Machinery & Equipment

Co., Pittsburgh, Pa.

Carlin Machinery & Supply Co., Inc.,

Allegheny, Pa.

Thos. P. Conard & Co., 119 S. 4th St.,

Philadelphia, Pa.

Hannan & Finton, Springfield, Mass.

Hill, Clarke & Co., Boston, Mass.

W. C. Johnson & Sons Machinery Co.,

St. Louis, Mo.

J. J. McCabe, 14 Day St., New York.

McDowell & Co., Allegheny, Pa.

Machinists Supply Co., 16-18 So. Canal

St., Chicago, Ill.

Manning, Maxwell & Moore, Inc., 85-89

Liberty St., New York.

Marshall & Huchart Machinery Co., 62-

64 So. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal

St., Chicago, Ill.

Edgar M. Moore & Co., Pittsburgh, Pa.

Motch and Merryweather Machinery Co.,

Cleveland, O.

New York Machinery Depot, 120 Broad-

way, New York.

S. Obermayer Co., Cincinnati, O.

Prentiss Tool & Supply Co., 115 Liberty

St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee

Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and

Wayman Sts., Chicago, Ill.

Sebastian Lathe Co., Cincinnati, O.

L. F. Seyfert's Sons, Inc., 437-441 N. 3d

St., Philadelphia, Pa.

H. A. Stocker Machinery Co., 20 S. Clin-

ton St., Chicago, Ill.

Frank Toomey, 127-131 No. 3d St., Phila-

delphia, Pa.

Jacob Ullman, Buffalo, N. Y.

Vandeyck-Churchill Co., 8 Day St., N. Y.

A. D. White Machinery Co., 39-41 S.

Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit,

Mich.

Drilling Machines, Adjustable**Head—**

Dwight Slate Machine Co., Hartford, Ct.

Drilling Machines, Arch**Bar—**

Rickford Drill & Tool Co., Cincinnati, O.

Wm. Gardam & Son, 221 Fulton St., N.Y.

Hilbert Machine Co., Cincinnati, O.

Newton Machine Tool Works, Philadel-

phia, Pa.

Niles-Bement-Pond Co., 111 Broadway,

New York.

Drilling Machines, Auto-**matic Cam Feed—**

Dwight Slate Machine Co., Hartford, Ct.

Drilling Machines, Auto-**matic Stop—**

American Tool Works Co., Cincinnati, O.

W. F. & John Barnes Co., Rockford, Ill.

Cincinnati Machine Tool Co., Cincinnati,

O.

W. P. Davis Machine Co., Rochester, N.Y.

Wm. Gardam & Son, 221 Fulton St., N.Y.

Garvin Machine Co., Spring and Varick

Sts., New York.

E. Harrington, Son & Co., Philadelphia,

Pa.

Henry & Wright Mfg. Co., Hartford, Ct.

Hilbert Machine Co., Cincinnati, O.

New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 111 Broadway,

New York.

Francis Reed Co., Worcester, Mass.

Sibley Machine Tool Co., South Bend,

Ind.

Silver Mfg. Co., Salem, O.

Drilling Machines, Auto-**matic Worm Feed—**

Dwight Slate Machine Co., Hartford, Ct.

Drilling Machines, Ball**Bearing—**

Henry & Wright Mfg. Co., Hartford, Ct.

Drilling Machines, Bench—

Boynton & Plummer, Worcester, Mass.

Burke Machinery Co., Cleveland, O.

Jas. Clark, Jr., Electric Co., Louisville,

Ky.

Wm. Gardam & Son, Inc., 221 Fulton

St., New York.

New York.

Garvin Machine Co., Spring & Varick Sts.,

New York.

Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 28 Warren St., N. Y.

National Machine Co., Hartford, Ct.

Pratt & Whitney Co., Hartford, Ct.

Francis Reed Co., Worcester, Mass.

Rockford Drilling Machine Co., Rockford,

Ill.

Sigourney Tool Co., Hartford, Ct.

Silver Mfg. Co., Salem, O.

Dwight Slate Machine Co., Hartford, Ct.

Sloan & Chace Mfg. Co., Ltd., Newark,

N. J.

United States Electrical Tool Co., Cincin-

nati, O.

Drilling Machines, Bicycle**Hub—**

American Tool Works Co., Cincinnati, O.

Champion Blower & Forge Co., Lancaster,

Pa.

Wm. Gardam & Son, 221 Fulton St., N.Y.

Garvin Machine Co., Spring and Varick
Sts., New York.
Hoefler Mfg. Co., Freeport, Ill.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Stow Flexible Shaft Co., Philadelphia, Pa.
**Drilling Machines. Bicycle
Rim—**
American Tool Works Co., Cincinnati, O.
Champion Blower & Forge Co., Lancaster,
Pa.

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.
Henry & Wright Mfg. Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling Machines. Black-
smiths'—**
Boynton & Plummer, Worcester, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster,
Pa.

Cincinnati Machine Tool Co., Cincinnati,
O.
Garvin Machine Co., Spring and Varick
Sts., New York.
E. Harrington, Son & Co., Philadelphia,
Pa.

Kilborn & Bishop Co., New Haven, Ct.
B. B. Noyes & Co., Greenfield, Mass.
Francis Reed Co., Worcester, Mass.
Silver Mfg. Co., Salem, O.
Whitman & Barnes Mfg. Co., Chicago.
Wiley & Russell Mfg. Co., Greenfield,
Mass.

**Drilling Machines. Boiler
Shell—**
American Tool Works Co., Cincinnati, O.
Bethlehem Steel Co., Bethlehem, Pa.
Bickford Drill & Tool Co., Cincinnati O.
Detrick & Harvey Machine Co., Balti-
more, Md.

Ingersoll-Rand Co., 11 Broadway, New
York.
Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling . Machines. Car
Wheel—**
American Tool Works Co., Cincinnati, O.
Cincinnati Machine Tool Co., Cincinnati,
O.

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.
E. Harrington, Son & Co., Philadelphia,
Pa.
Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling Machines. Connect-
ing Rod—**
American Tool Works Co., Cincinnati O.
Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia,
Pa.
Newton Machine Tool Works, Philadel-
phia, Pa.
Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling Machines. Core
Rock—**
Ingersoll Rand Co., 11 Broadway, N. Y.

**Drilling Machines. Double
Head Travers—**
Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia,
Pa.
Newton Machine Tool Works, Philadel-
phia, Pa.
Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling Machines. Electri-
cally Driven—**
American Tool Works Co., Cincinnati, O.
Bancroft & Co., Philadelphia, Pa.
W. F. & John Barnes Co., Rockford, Ill.
Baush Machine Tool Co., Springfield,
Mass.

Bickford Drill & Tool Co., Cincinnati, O.
Cincinnati Machine Tool Co., Cincinnati,
O.
Jos. Clark, Jr., Electric Co., Louisville,
Ky.

Dreses Machine Tool Co., Cincinnati, O.
Fox Machine Co., Grand Rapids, Mich.
Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

Gem Mfg. Co., Pittsburgh, Pa.
E. Harrington, Son & Co., Philadelphia,
Pa.
Henry & Wright Mfg. Co., Hartford, Ct.
Hilbert Machine Co., Cincinnati, O.
Hisey-Wolf Machine Co., Cincinnati, O.
Hoefler Mfg. Co., Freeport, Ill.

National Separator & Machine Co., Con-
cord, N. H.
Niles-Bement-Pond Co., 111 Broadway,
New York.
Northern Electrical Mfg. Co., Madison,
Wis.

Pawling & Harnischfeger, Milwaukee, Wis.
Pratt & Whitney Co., Hartford Ct.
Francis Reed Co., Worcester, Mass.
Rockford Drilling Machine Co., Rockford,
Ill.

Sibley Machine Tool Co., South Bend,
Ind.
Dwight Slate Machine Co., Hartford, Ct.
Stow Flexible Shaft Co., Philadelphia, Pa.
Stow Mfg. Co., Binghamton, N. Y.

United States Electrical Tool Co., Cin-
cinnati, O.
Washburn Shops, Worcester, Mass.
Drilling Machines. Geared—
American Tool Works Co., Cincinnati, O.
W. F. & John Barnes Co., Rockford, Ill.
Baush Machine Tool Co., Springfield,
Mass.

Bickford Drill & Tool Co., Cincinnati, O.
Boynton & Plummer, Worcester, Mass.
Cincinnati Machine Tool Co., Cincinnati,
O.

W. P. Davis Machine Co., Rochester, N.Y.
Dreses Machine Tool Co., Cincinnati, O.
Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

Goodell-Pratt Co., Greenfield, Mass.
E. Harrington, Son & Co., Philadelphia,
Pa.
Hilbert Machine Co., Cincinnati, O.
Hoefler Mfg. Co., Freeport, Ill.
Mechanics Machine Co., Rockford, Ill.

- Dressing, Rope—**
 Broderick & Bascom Rope Co., St. Louis.
 Lodge Mfg. Co., Mishawaka, Ind.
 C. W. Hunt Co., West New Brighton, N. Y.
- A. Leschen & Sons Rope Co., St. Louis.**
- Drill and Clamp, Combined—**
 (See Clamp and Drill, Combined.)
- Drill, Anvil and Vise—**
 (See Vise, Drill and Anvil.)
- Drill Attachments, Vise—**
 Goodell-Pratt Co., Greenfield, Mass.
 Prentiss Vise Co., 44 Barclay St., N. Y.
- Drill Cases, Chucks, &c.—**
 (See Cases, Chucks, &c.)
- Drill, Fertilizer, Hand—**
 Bateman Mfg. Co., Grenloch, N. J.
- Drill Grinding Machines.**
 (See Milling and Drilling Machines.)
- Drill Grinding Machines.**
 Twist—
 (See Grinders, Drill.)
- Drill Sockets—**
 (See Sockets, Drill.)
- Drilling and Milling Machine, Combined—**
 W. B. Knight Machinery Co., St. Louis, Mo.
 Lucas Machine Tool Co., Cleveland, O.
- Drilling Machines—**
 MERCHANTS.
 Baird Machinery Co., Pittsburgh, Pa.
 W. R. Beatty Machinery & Equipment Co., Pittsburgh, Pa.
 Carlin Machinery & Supply Co., Inc., Allegheny, Pa.
 Thos. P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.
 Hannan & Finton, Springfield, Mass.
 Hill, Clarke & Co., Boston, Mass.
 W. C. Johnson & Sons Machinery Co., St. Louis, Mo.
 J. J. McCabe, 14 Dey St., New York.
 McDowell & Co., Allegheny, Pa.
 Machinists Supply Co., 16-18 So. Canal St., Chicago, Ill.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Marshall & Hushart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
 McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.
 Edgar M. Moore & Co., Pittsburgh, Pa.
 Metch and Merryweather Machinery Co., Cleveland, O.
 New York Machinery Depot, 120 Broadway, New York.
 S. Obermayer Co., Cincinnati, O.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Sebastian Lathe Co., Cincinnati, O.
 L. F. Seyfert's Sons, Inc., 437-441 N. 3d St., Philadelphia, Pa.
 H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
 Jacob Ullman, Buffalo, N. Y.
 Vandryck-Churchill Co., 8 Dey St., N. Y.
 A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
- Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit, Mich.
- Drilling Machines, Adjustable Head—**
 Dwight Slate Machine Co., Hartford, Ct.
- Drilling Machines, Arch Bar—**
 Bickford Drill & Tool Co., Cincinnati, O.
 Wm. Gardam & Son, 221 Fulton St., N. Y.
 Hilbert Machine Co., Cincinnati, O.
 Newton Machine Tool Works, Philadelphia, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
- Drilling Machines, Automatic Cam Feed—**
 Dwight Slate Machine Co., Hartford, Ct.
- Drilling Machines, Automatic Stop—**
 American Tool Works Co., Cincinnati, O.
 W. F. & John Barnes Co., Rockford, Ill.
 Cincinnati Machine Tool Co., Cincinnati, O.
- W. P. Davis Machine Co., Rochester, N. Y.
 Wm. Gardam & Son, 221 Fulton St., N. Y.
 Garvin Machine Co., Spring and Varick Sts., New York.
 E. Harrington, Son & Co., Philadelphia, Pa.
 Henry & Wright Mfg. Co., Hartford, Ct.
 Hilbert Machine Co., Cincinnati, O.
 New Haven Mfg. Co., New Haven, Ct.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Francis Reed Co., Worcester, Mass.
 Siffey Machine Tool Co., South Bend, Ind.
 Silver Mfg. Co., Salem, O.
- Drilling Machines, Automatic Worm Feed—**
 Dwight Slate Machine Co., Hartford, Ct.
- Drilling Machines, Ball Bearing—**
 Henry & Wright Mfg. Co., Hartford, Ct.
- Drilling Machines, Bench—**
 Boynton & Plummer, Worcester, Mass.
 Burke Machinery Co., Cleveland, O.
 Jas. Clark, Jr., Electric Co., Louisville, Ky.
 Wm. Gardam & Son, Inc., 221 Fulton St., New York.
 Garvin Machine Co., Spring & Varick Sts., New York.
 Goodell-Pratt Co., Greenfield, Mass.
 Millers Falls Co., 28 Warren St., N. Y.
 National Machine Co., Hartford, Ct.
 Pratt & Whitney Co., Hartford, Ct.
 Francis Reed Co., Worcester, Mass.
 Rockford Drilling Machine Co., Rockford, Ill.
 Sigourney Tool Co., Hartford, Ct.
 Silver Mfg. Co., Salem, O.
 Dwight Slate Machine Co., Hartford, Ct.
 Sloan & Chace Mfg. Co., Ltd., Newark, N. J.
 United States Electrical Tool Co., Cincinnati, O.
- Drilling Machines, Bicycle Hub—**
 American Tool Works Co., Cincinnati, O.
 Champion Blower & Forge Co., Lancaster, Pa.
 Wm. Gardam & Son, 221 Fulton St., N. Y.

Garvin Machine Co., Spring and Varick
Sts., New York.

Hoefler Mfg. Co., Freeport, Ill.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Stow Flexible Shaft Co., Philadelphia, Pa.

**Drilling Machines. Bicycle
Rim—**

American Tool Works Co., Cincinnati, O.
Champion Blower & Forge Co., Lancaster,
Pa.

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

Henry & Wright Mfg. Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling Machines. Black-
smiths—**

Boynton & Plummer, Worcester, Mass.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster,
Pa.

Cincinnati Machine Tool Co., Cincinnati,
O.

Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia,
Pa.

Kilbom & Bishop Co., New Haven, Ct.
B. B. Noyes & Co., Greenfield, Mass.

Francis Reed Co., Worcester, Mass.
Silver Mfg. Co., Salem, O.

Whitman & Barnes Mfg. Co., Chicago.
Wiley & Russell Mfg. Co., Greenfield,
Mass.

**Drilling Machines. Boiler
Shell—**

American Tool Works Co., Cincinnati, O.
Bethlehem Steel Co., Bethlehem, Pa.

Bickford Drill & Tool Co., Cincinnati, O.
Detrick & Harvey Machine Co., Balti-
more, Md.

Ingersoll-Rand Co., 11 Broadway, New
York.

Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling Machines. Car
Wheel—**

American Tool Works Co., Cincinnati, O.
Cincinnati Machine Tool Co., Cincinnati,
O.

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia,
Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling Machines. Connect-
ing Rod—**

American Tool Works Co., Cincinnati, O.
Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia,
Pa.

Newton Machine Tool Works, Philadel-
phia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling Machines. Core
Rock—**

Ingersoll-Rand Co., 11 Broadway, N. Y.

**Drilling Machines. Double
Head Traverse—**

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia,
Pa.

Newton Machine Tool Works, Philadel-
phia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

**Drilling Machines. Electric-
ally Driven—**

American Tool Works Co., Cincinnati, O.
Bancroft & Co., Philadelphia, Pa.

W. F. & John Barnes Co., Rockford, Ill.
Baush Machine Tool Co., Springfield,
Mass.

Bickford Drill & Tool Co., Cincinnati, O.
Cincinnati Machine Tool Co., Cincinnati,
O.

Jos. Clark, Jr., Electric Co., Louisville,
Ky.

Dreses Machine Tool Co., Cincinnati, O.
Fox Machine Co., Grand Rapids, Mich.

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

Gem Mfg. Co., Pittsburgh, Pa.

E. Harrington, Son & Co., Philadelphia,
Pa.

Henry & Wright Mfg. Co., Hartford, Ct.
Hilbert Machine Co., Cincinnati, O.

Hisey-Wolf Machine Co., Cincinnati, O.
Hoefler Mfg. Co., Freeport, Ill.

National Separator & Machine Co., Con-
cord, N. H.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Northern Electrical Mfg. Co., Madison,
Wis.

Pawling & Harnischfeger, Milwaukee, Wis.
Pratt & Whitney Co., Hartford, Ct.

Francis Reed Co., Worcester, Mass.
Rockford Drilling Machine Co., Rockford,
Ill.

Sibley Machine Tool Co., South Bend,
Ind.

Dwight Slate Machine Co., Hartford, Ct.
Stow Flexible Shaft Co., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.
United States Electrical Tool Co., Cin-
cinnati, O.

Washburn Shops, Worcester, Mass.

Drilling Machines. Geared—

American Tool Works Co., Cincinnati, O.
W. F. & John Barnes Co., Rockford, Ill.

Baush Machine Tool Co., Springfield,
Mass.

Bickford Drill & Tool Co., Cincinnati, O.
Boynton & Plummer, Worcester, Mass.

Cincinnati Machine Tool Co., Cincinnati,
O.

W. P. Davis Machine Co., Rochester, N.Y.
Dreses Machine Tool Co., Cincinnati, O.

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

Goodell-Pratt Co., Greenfield, Mass.
E. Harrington, Son & Co., Philadelphia,
Pa.

Hilbert Machine Co., Cincinnati, O.
Hoefler Mfg. Co., Freeport, Ill.

Mechanics Machine Co., Rockford, Ill.

- Millers Falls Co., 28 Warren St., N. Y.
 New Haven Mfg. Co., New Haven, Ct.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Francis Reed Co., Worcester, Mass.
 Sibley Machine Tool Co., South Bend,
 Ind.
 Silver Mfg. Co., Salem, O.
 Stow Flexible Shaft Co., Philadelphia, Pa.
- Drilling Machines. Gun Barrel—**
 Garvin Machine Co., Spring and Varick
 Sts., New York.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Pratt & Whitney Co., Hartford, Ct.
- Drilling Machines. High Speed—**
 Henry & Wright Mfg. Co., Hartford, Ct.
- Drilling Machines. Horizontal—**
 W. F. & John Barnes Co., Rockford, Ill.
 Baush Machine Tool Co., Springfield,
 Mass.
 Boynton & Plummer, Worcester, Mass.
 Detrick & Harvey Machine Co., Balti-
 more, Md.
 Espen-Lucas Machine Works, Philadel-
 phia, Pa.
 Fomdick Machine Tool Co., Cincinnati, O.
 Wm. Gardam & Son, 221 Fulton St., N.Y.
 Garvin Machine Co., Spring and Varick
 Sts., New York.
 Gem Mfg. Co., Pittsburgh, Pa.
 Goodell-Pratt Co., Greenfield, Mass.
 Hoefler Mfg. Co., Freeport, Ill.
 Lucas Machine Tool Co., Cleveland, O.
 Newton Machine Tool Works, Philadel-
 phia, Pa.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Pratt & Whitney Co., Hartford, Ct.
 Rockford Drilling Machine Co., Rockford,
 Ill.
 Dwight Slate Machine Co., Hartford, Ct.
 Wiley & Russell Mfg. Co., Greenfield,
 Mass.
- Drilling Machines. Loco-
 motive Frame—**
 American Tool Works Co., Cincinnati, O.
 Baush Machine Tool Co., Springfield,
 Mass.
 Bickford Drill & Tool Co., Cincinnati, O.
 Wm. Gardam & Son, 221 Fulton St., N.Y.
 Gem Mfg. Co., Pittsburgh, Pa.
 E. Harrington, Son & Co., Philadelphia,
 Pa.
 Hisey-Wolf Machine Co., Cincinnati, O.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Stow Flexible Shaft Co., Philadelphia, Pa.
- Drilling Machines. Marble—**
 American Tool Works Co., Cincinnati, O.
 Wm. Gardam & Son, 221 Fulton St., N.Y.
 Garvin Machine Co., Spring and Varick
 Sts., New York.
 Gem Mfg. Co., Pittsburgh, Pa.
 E. Harrington, Son & Co., Philadelphia,
 Pa.
 Henry & Wright Mfg. Co., Hartford, Ct.
 Hisey-Wolf Machine Co., Cincinnati, O.
 Pratt & Whitney Co., Hartford, Ct.
 Francis Reed Co., Worcester, Mass.
 Stow Flexible Shaft Co., Philadelphia, Pa.
- United States Electrical Tool Co., Cin-
 cinnati, O.
- Drilling Machines. Mining—**
 Hubbard & Co., Pittsburgh, Pa.
 Jeffrey Mfg. Co., Columbus, O.
- Drilling Machines. Multi-
 ple—**
 Bancroft & Co., Philadelphia, Pa.
 W. F. & John Barnes Co., Rockford, Ill.
 Baush Machine Tool Co., Springfield,
 Mass.
 Bickford Drill & Tool Co., Cincinnati, O.
 Cincinnati Machine Tool Co., Cincinnati,
 O.
 Jas Clark, Jr., Electrical Co., Louisville,
 Ky.
 Cleveland Punch & Shear Works Co.,
 Cleveland, O.
 Fox Machine Co., Grand Rapids, Mich.
 Wm. Gardam & Son, 221 Fulton St., N.Y.
 Garvin Machine Co., Spring and Varick
 Sts., New York.
 E. Harrington, Son & Co., Philadelphia,
 Pa.
 Henry & Wright Mfg. Co., Hartford, Ct.
 Hilbert Machine Co., Cincinnati, O.
 Hoefler Mfg. Co., Freeport, Ill.
 Mechanics Machine Co., Rockford, Ill.
 National Machine Co., Hartford, Ct.
 National Separator & Machine Co., Con-
 cord, N. H.
 Newton Machine Tool Works, Philadel-
 phia, Pa.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Francis Reed Co., Worcester, Mass.
 Rockford Drilling Machine Co., Rockford,
 Ill.
 Sigourney Tool Co., Hartford, Ct.
 Dwight Slate Machine Co., Hartford, Ct.
 Sloan & Chace Mfg. Co., Newark, N. J.
 Taylor & Fenn Co., Hartford, Ct.
 Washburn Shops, Worcester, Mass.
- Drilling Machines. Oil
 Well—**
 American Well Works, Aurora, Ill.
 Stow Flexible Shaft Co., Philadelphia, Pa.
- Drilling Machines. Over-
 head Traveling—**
 Bickford Drill & Tool Co., Cincinnati, O.
 Wm. Gardam & Son, 221 Fulton St., N.Y.
 Gem Mfg. Co., Pittsburgh, Pa.
- Drilling Machines. Pintone—**
 Blake & Johnson Co., Waterbury, Ct.
- Drilling Machines. Pneu-
 matic—**
 Chicago Pneumatic Tool Co., Fisher
 Bldg., Chicago, Ill.
 Clayton Air Compressor Works, 115 Broad-
 way, New York.
 Helwig Mfg. Co., St. Paul, Minn.
 Ingersoll-Rand Co., 11 Broadway, N. Y.
- Drilling Machines. Porta-
 ble—**
 American Tool Works Co., Cincinnati, O.
 Baush Machine Tool Co., Springfield,
 Mass.
 Bickford Drill & Tool Co., Cincinnati, O.
 Champion Blower & Forge Co., Lancaster,
 Pa.
 Chicago Pneumatic Tool Co., Fisher
 Bldg., Chicago, Ill.
 Jas. Clark, Jr., Electrical Co., Louisville,
 Ky.

Detrick & Harvey Machine Co., Baltimore, Md.

Espen-Lucas Machine Works, Philadelphia, Pa.

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick Sts., New York.

Gem Mfg. Co., Pittsburgh, Pa.

Goodell-Pratt Co., Greenfield, Mass.

Hisey-Wolf Machine Co., Cincinnati, O.

Ingersoll-Rand Co., 11 Broadway, N. Y.

Millers Falls Co., 28 Warren St., N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

Francis Reed Co., Worcester, Mass.

Stow Flexible Shaft Co., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

United States Electrical Tool Co., Cincinnati, O.

Drilling Machines, Portable Electric—

General Electric Co., Schenectady, N. Y.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

United States Electric Tool Co., Cincinnati, O.

Drilling Machines, Post—

Bickford Drill & Tool Co., Cincinnati, O.

Boynton & Plummer, Worcester, Mass.

Champion Blower & Forge Co., Lancaster, Pa.

Cleveland Punch & Shear Works Co., Cleveland, O.

Garvin Machine Co., Spring and Varick Sts., New York.

Goodell-Pratt Co., Greenfield, Mass.

E. Harrington, Son & Co., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

R. B. Noyes & Co., Greenfield, Mass.

Francis Reed Co., Worcester, Mass.

Sibley Machine Tool Co., South Bend, Ind.

Silver Mfg. Co., Salem O.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Drilling Machines, Radial—

American Tool Works Co., Cincinnati, O.

Baush Machine Tool Co., Springfield, Mass.

Bickford Drill & Tool Co., Cincinnati, O.

Jos. Clark, Jr., Electric Co., Louisville, Ky.

Cleveland Punch & Shear Works, Cleveland, O.

Dreses Machine Tool Co., Cincinnati, O.

Fosdick Machine Tool Co., Cincinnati, O.

Wm. E. Gang Co., Cincinnati, O.

Garvin Machine Co., Spring and Varick Sts., New York.

Gem Mfg. Co., Pittsburgh, Pa.

E. Harrington, Son & Co., Philadelphia, Pa.

Henry & Wright Mfg. Co., Hartford, Ct.

Hilbert Machine Co., Cincinnati, O.

Hisey-Wolf Machine Co., Cincinnati, O.

Ingersoll-Rand Co., 11 Broadway, N. Y.

Mueller Machine Tool Co., Cincinnati, O.

Newton Machine Tool Works, Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Stow Flexible Shaft Co., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

United States Electrical Tool Co., Cincinnati, O.

Drilling Machines, Radial Wall—

Baush Machine Tool Co., Springfield, Mass.

Bickford Drill & Tool Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Detrick & Harvey Machine Co., Baltimore, Md.

Garvin Machine Co., Spring and Varick Sts., New York.

E. Harrington, Son & Co., Philadelphia, Pa.

Hilbert Machine Co., Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Drilling Machines, Rock, Diamondless Core—

Ingersoll-Rand Co., 11 Broadway, N. Y.

Drilling Machines, Sensitive—

W. F. & John Barnes Co., Rockford, Ill.

Burke Machinery Co., Cleveland, O.

Jas. Clark, Jr., Electric Co., Louisville, Ky.

Fox Machine Co., Grand Rapids, Mich.

Wm. Gardam & Son, 221 Fulton St., N.Y.

Garvin Machine Co., Spring and Varick Sts., New York.

Goodell-Pratt Co., Greenfield, Mass.

E. Harrington, Son & Co., Philadelphia, Pa.

Henry & Wright Mfg. Co., Hartford, Ct.

Hoefel Mfg. Co., Freeport, Ill.

Mechanics Machine Co., Rockford, Ill.

National Machine Co., Hartford, Ct.

National Separator & Machine Co., Concord, N. H.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

Francis Reed Co., Worcester, Mass.

Rockford Drilling Machine Co., Rockford, Ill.

Sigourney Tool Co., Hartford, Ct.

Dwight Slate Machine Co., Hartford, Ct.

Sloan and Chace Mfg. Co., Newark, N. J.

Stow Flexible Shaft Co., Philadelphia, Pa.

Taylor & Fenn Co., Hartford, Ct.

United States Electroal Tool Co., Cincinnati, O.

Washburn Shops, Worcester, Mass.

Drilling Machines, Spindle—

Bancroft & Co., Philadelphia, Pa.

Baush Machine Tool Co., Springfield, Mass.

Wm. Gardam & Son, 221 Fulton St., N.Y.

Garvin Machine Co., Spring and Varick Sts., New York.

E. Harrington, Son & Co., Philadelphia, Pa.

Henry & Wright Mfg. Co., Hartford, Ct.

National Machine Co., Hartford, Ct.

National Separator & Machine Co., Concord, N. H.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

F. E. Reed Co., Worcester, Mass.

Francis Reed Co., Worcester, Mass.

F. B. Shuster Co., New Haven, Ct.

Sibley Machine Tool Co., South Bend, Ind.

Sloan & Chace Mfg. Co., Newark, N. J.

Drilling Machines, Sub-

Marine—
Ingersoll-Rand Co., 11 Broadway, N. Y.

Drilling Machines, Suspension—

Bickford Drill & Tool Co., Cincinnati, O.
Cleveland Punch & Shear Works Co.,
Cleveland, O.

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia,
Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Francis Reed Co., Worcester, Mass.

Drilling Machines, Tapping—

American Tool Works Co., Cincinnati, O.
Bickford Drill & Tool Co., Cincinnati, O.
Cincinnati Machine Tool Co., Cincinnati,
O.

Dresses Machine Tool Co., Cincinnati, O.
Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

Gem Mfg. Co., Pittsburgh, Pa.
C. E. Jennings & Co., 42 Murray St.,
New York.

National Machine Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
Sloan & Chace Mfg. Co., Ltd., Newark,
N. J.

Stow Flexible Shaft Co., Philadelphia, Pa.

Drilling Machines, Track—

Boynton & Plummer, Worcester, Mass.
Espin-Lucas Machine Works, Broad &
Noble Sts., Philadelphia, Pa.

Wm. Gardam & Son, Inc., 221 Fulton
St., New York.

Millers Falls Co., 23 Warren St., N. Y.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Sheffield Car Co., Three Rivers, Mich.
Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

Drilling Machines, Turret—

Bancroft & Co., Philadelphia, Pa.
Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia,
Pa.

National Separator & Machine Co., Con-
cord, N. H.

Niles-Bement-Pond Co., 111 Broadway,
New York.

A. D. Quint, Hartford, Ct.
Francis Reed Co., Worcester, Mass.

Drilling Machines, Universal—

American Tool Works Co., Cincinnati, O.
Baush Machine Tool Co., Springfield, O.
Bickford Drill & Tool Co., Cincinnati, O.

Detrick & Harvey Machine Co., Balti-
more, Md.

Dresses Machine Tool Co., Cincinnati, O.
Fosdick Machine Tool Co., Cincinnati, O.
Wm. Gardam & Son, 221 Fulton St., N.Y.

Garvin Machine Co., Spring and Varick
Sts., New York.

E. Harrington, Son & Co., Philadelphia,
Pa.

Hilbert Machine Co., Cincinnati, O.
Millers Falls Co., 23 Warren St., N. Y.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Robertson Mfg. Co., Buffalo, N. Y.
D. Saunders' Sons, Yonkers, N. Y.

Stow Flexible Shaft Co., Philadelphia, Pa.

Drilling Machines, Vertical—

American Tool Works Co., Cincinnati, O.
Bancroft & Co., Philadelphia, Pa.

W. F. & John Barnes Co., Rockford, Ill.
Baush Machine Tool Co., Springfield,
Mass.

Cincinnati Machine Tool Co., Cincinnati,
O.

W. P. Davis Machine Co., Rochester,
N. Y.

Dresses Machine Tool Co., Cincinnati, O.
Dwight Slate Machine Co., Hartford, Ct.

Wm. Gardam & Son, 221 Fulton St., N.Y.
Garvin Machine Co., Spring and Varick
Sts., New York.

Goodell-Pratt Co., Greenfield, Mass.
E. Harrington, Son & Co., Philadelphia,
Pa.

Henry & Wright Mfg. Co., Hartford, Ct.
Hilbert Machine Co., Cincinnati, O.

Hoefler Mfg. Co., Freeport, Ill.
Mechanics Machine Co., Rockford, Ill.

National Machine Co., Hartford, Ct.
National Machine Tool Co., Cincinnati,
O.

National Separator & Machine Co., Con-
cord, N. H.

New Haven Mfg. Co., New Haven, Ct.
Newton Machine Tool Works, Philadel-
phia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
Francis Reed Co., Worcester, Mass.

Robertson Mfg. Co., Buffalo, N. Y.
Rockford Drilling Machine Co., Rockford,
Ill.

Sibley Machine Tool Co., South Bend,
Ind.

Sigourney Tool Co., Hartford, Ct.
Silver Mfg. Co., Salem, O.

Sloan & Chace Mfg. Co., Newark, N. J.
Washburn Shops, Worcester, Mass.

Drilling Machines, Wheel

Car—
Niles-Bement-Pond Co., 111 Broadway,
New York.

Drills—

(See Taps and Drills.)

Drills, Artesian Well—

American Well Works, Aurora, Ill.

Drills, Bit Point—

(See Drills, Twist.)

Drills, Bit Stock—

Bethlehem Steel Co., So. Bethlehem, Pa.
Cleveland Twist Drill Co., Cleveland, O.

Lincoln-Williams Twist Drill Co., Taun-
ton, Mass.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Standard Tool Co., Cleveland, O.
Whitaker Mfg. Co., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago.

Drills, Blacksmiths—

(See Drills, Twist.)

Drills, Breast—

Boynnton & Plummer, Worcester, Mass.
Jas. Clark, Jr., Electric Co., Louisville,
Ky.

John S. Fray & Co., Bridgeport, Ct.
Gem Mfg. Co., Pittsburgh, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Hisey-Wolf Machine Co., Cincinnati, O.
Ingersoll-Rand Co., 11 Broadway, N. Y.
Millers Falls Co., 28 Warren St., N. Y.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

United States Electrical Tool Co., Cinci-
nati, O.

Drills, Breast, Pneumatic—

Helwig Mfg. Co., St. Paul, Minn.

Drills, Brick and Cement—

Diamond Expansion Bolt Co., 9-15 Mur-
ray St., New York.

Kilborn & Bishop Co., New Haven, Ct.
Star Extension Bolt Co., 147 Cedar St.,
New York.

Steward & Romaine Mfg. Co., Philadel-
phia, Pa.

Drills, Center—

(See Drills, Twist.)

Drills, Chain—

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., 28 Warren St., N. Y.

Drills, Clamp—

Boynnton & Plummer, Worcester, Mass.
Francis Reed Co., Worcester, Mass.
Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.
United States Electrical Tool Co., Cin-
cinnati, O.

Drills, Combination Center—

Cleveland Twist Drill Co., Cleveland, O.
J. T. Slocomb Co., Providence, R. I.

Drills, Combined Seed and

Fertilizer—

Bateman Mfg. Co., Grenloch, N. J.

Drills, Combined Seed and

Plow—

Cutaway Harrow Co., Higganum, Ct.

Drills, Corn—

(See Planters and Drills, Corn.)

Drills, Cotter—

Niles-Bement-Pond Co., 111 Broadway,
New York.

Drills, Diamond Rock—

Birdsboro Steel Foundry & Machine Co.,
Birdsboro, Pa.

Drills, Electricians' and

Drill Holders—

Star Extension Bolt Co., 147-149 Cedar
St., New York.

Drills, Extra Length—

(See Bits, Bell Hangers', Electricians'.)

Drills, Flat—

Billings & Spencer Co., Hartford, Ct.

Drills, Fluted—

American Die & Tool Co., Reading, Pa.
Cleveland Twist Drill Co., Cleveland, O.
Standard Tool Co., Cleveland, O.
Whitman & Barnes Mfg. Co., Chicago.
Wiley & Russell Mfg. Co., Greenfield,
Mass.

Drills, Glass, Diamond—

Est. of John Dickinson, 64 Nassau St.,
New York.

Thos. L. Dickinson, 45 Vesey St., N. Y.

Drills, Hammer—

Ingersoll-Rand Co., 11 Broadway, N. Y.

Drills, Hand—

Boynnton & Plummer, Worcester, Mass.
Jas. Clark, Jr., Electric Co., Louisville,
Ky.

John S. Fray & Co., Bridgeport, Ct.

Gem Mfg. Co., Pittsburgh, Pa.

Goodell-Pratt Co., Greenfield, Mass.

Grabler Mfg. Co., Cleveland, O.

Hisey-Wolf Machine Co., Cincinnati, O.

Keystone Mfg. Co., Buffalo, N. Y.

Millers Falls Co., 28 Warren St., N. Y.

North Bros. Mfg. Co., American St. and
Lehigh Ave., Philadelphia, Pa.

B. B. Noyes & Co., Greenfield, Mass.

Francis Reed Co., Worcester, Mass.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

Tower & Lyon Co., 95 Chambers St.,
New York.

United States Electrical Tool Co., Cinci-
nati, O.

Wiley & Russell Mfg. Co., Greenfield,
Mass.

Drills, High Speed Steel—

Cleveland Twist Drill Co., Cleveland, O.
Lincoln-Williams Twist Drill Co., Taun-
ton, Mass.

Whitaker Mfg. Co., Chicago, Ill.

Drills, Hollow—

Cleveland Twist Drill Co., Cleveland, O.
Morse Twist Drill & Machine Co., New
Bedford, Mass.

Standard Tool Co., Cleveland, O.

Drills, Mashed Twist—

Samuel Osborn & Co., Boston, Mass.

Drills, Oil—

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Whitman & Barnes Mfg. Co., Chicago.

Drills, Oil Tube—

Cleveland Twist Drill Co., Cleveland, O.

Standard Tool Co., Cleveland, O.

Drills, Post—

E. Harrington, Son & Co. (Inc.), Phila-
delphia, Pa.

Drills, Ratchet—

Armstrong Bros. Tool Co., 617 Austin
Ave., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Cleveland Twist Drill Co., Cleveland, O.

Curtis & Curtis Co., Bridgeport, Ct.

Keystone Mfg. Co., Buffalo, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

Lincoln-Williams Twist Drill Co., Taun-
ton, Mass.

Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Millers Falls Co., 28 Warren St., N. Y.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Charles Parker Co., Meriden, Ct.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

Whitman & Barnes Mfg. Co., Chicago.

Drills, Ratchet, Universal—

Armstrong Bros. Tool Co., 104-124 N.
Francisco Ave., Chicago, Ill.

Drills, Reaming and Tap-

ping, Pneumatic—

Helwig Mfg. Co., St. Paul, Minn.

Drills, Reciprocating—

Goodell-Pratt Co., Greenfield, Mass.

Drills, Rock—

Birdsboro Steel Foundry and Machine Co.,

Birdsboro, Pa.

Chicago Pneumatic Tool Co., Fisher

Bldg., Chicago, Ill.

Clayton Air Compressor Works, 114-118

Liberty St., New York.

Ingersoll-Rand Co., 11 Broadway, New

York.

Jeffrey Mfg. Co., Columbus, O.

Stow Flexible Shaft Co., 26th and Callow-

hill Sts., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

Drills, Rock, Electric Air—

Ingersoll-Rand Co., 11 Broadway, N. Y.

Drills, Seed, Hand—

Bateman Mfg. Co., Grenloch, N. J.

Drills, Star—

Kilborn & Bishop Co., New Haven, Ct.

Krauter & Co., Inc., Newark, N. J.

Star Expansion Bolt Co., 147-149 Cedar

St., New York.

Drills, Stone—

Diamond Expansion Bolt Co., 11 Broad-

way, New York.

Kilborn & Bishop Co., New Haven, Ct.

Krauter & Co., Inc., Newark, N. J.

Star Expansion Bolt Co., 147 Cedar St.,

New York.

Drills, Straight Shank—

(See Drills, Twist.)

Drills, Straightway—

(See Drills, Twist.)

Drills, Tap—

Butterfield & Co., Derby Line, Vt.

Cleveland Twist Drill Co., Cleveland, O.

Goodell-Pratt Co., Greenfield, Mass.

Morse Twist Drill & Machine Co., New

Bedford, Mass.

Standard Tool Co., Cleveland, O.

Drills, Taper Shank—

(See Drills, Twist.)

Drills, Three and Four**Groove—**

(See Drills, Twist.)

Drills, Twist—

Cleveland Twist Drill Co., Cleveland, O.

Goodell-Pratt Co., Greenfield, Mass.

Lincoln-Williams Twist Drill Co., Taun-

ton, Mass.

Morse Twist Drill & Machine Co., New

Bedford, Mass.

Samuel Osborn & Co., Boston, Mass.

F. R. Phillips & Sons Co., Pennsylvania

Bldg., Philadelphia, Pa.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

Union Twist Drill Co., Athol, Mass.

Whitaker Mfg. Co., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago.

Drills, Wood Boring Brace—

Cleveland Twist Drill Co., Cleveland, O.

H. H. Mayhew Co., Shelburne Falls,

Mass.

Standard Tool Co., Cleveland, O.

James Swan Co., Seymour, Ct.

Whitaker Mfg. Co., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago.

Drills, Wood Boring Ma-**chine—**

Hiser-Wolf Machine Co., Cincinnati, O.

Stow Flexible Shaft Co., 26th and Callow-

hill Sts., Philadelphia, Pa.

United States Electrical Tool Co., Cin-

cinnati, O.

Drink Shakers—

(See Shakers, Drink.)

Drinking Fountains—

(See Fountains, Drinking.)

Dripping Pans—

(See Pans, Dripping.)

Drive Hooks, Punches,**Screws—**

(See Hooks, Punches, Screws.)

Drivers, Coopers—

Piqua Handle & Mfg. Co., Piqua, O.

L. & I. J. White Co., Buffalo, N. Y.

Drivers, Drift Bolt—

Chicago Pneumatic Tool Co., Fisher

Bldg., Chicago, Ill.

Drivers, File—

Thos. Carlin's Sons, Allegheny, Pa.

Industrial Works, Bay City, Mich.

Interstate Engineering Co., Bedford, O.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

New Jersey Foundry & Machine Co., 9-15

Murray St., New York.

Vulcan Iron Works, 28 No. Irving Ave.,

Chicago, Ill.

Drivers, File, Pneumatic—

Ingersoll-Rand Co., 11 Broadway, New

York.

Drivers, File, Railroad—

Industrial Works, Bay City, Mich.

Drivers, File, Steam—

Vulcan Iron Works, 28 No. Irving Ave.,

Chicago, Ill.

Drivers, Screw—

Billings & Spencer Co., Hartford, Ct.

Bridgeport Hardware Mfg. Co., Bridge-

port, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Henry Dagston & Sons, Philadelphia, Pa.

Ducharmes & Co., Shelburne Falls, Mass.

Ford Attyer Bit Co., Holyoke, Mass.

Goodell-Pratt Co., Greenfield, Mass.

Kilborn & Bishop Co., New Haven, Ct.

H. H. Mayhew Co., Shelburne Falls,

Mass.

Millers Falls Co., 28 Warren St., N. Y.

North Bros. Mfg. Co., American St. and

Lehigh Ave., Philadelphia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette

St., New York.

Smith & Hemenway Co., 108-110 Duane

St., New York.

Snell Mfg. Co., Fiskdale, Mass.

Stanley Rule & Level Co., New Brit-

ain, Ct.

L. S. Starrett Co., Athol, Mass.

James Swan Co., Seymour, Ct.

Tower & Lyon Co., 95 Chambers St.,

New York.

Tuck Mfg. Co., Brockton, Mass.

Whitman & Barnes Mfg. Co., Chicago.

Drivers, Screw and Holder—

North Bros. Mfg. Co., Philadelphia, Pa.

Tower & Lyon Co., 95 Chambers St.,

New York.

Drivers, Screw, Automatic—

Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 28 Warren St., N. Y.

North Bros. Mfg. Co., Philadelphia, Pa.

Drivers, Screw, Combina-**tion—**

Billings & Spencer Co., Hartford, Ct.

Dusters—
(See Brushes, Whitewash, Horse, &c.)
Dusters, Dynamo, Machine
Type, &c.—
Smith & Hemenway Co., 108-110 Duane
St., New York.

Dusters, Turkey, Counter,
&c.—
Osborn Mfg. Co., Cleveland, O.
Dyeing Machines—
Geo. P. Clark Co., Windsor Locks, Ct.
Geo. V. Cresson Co., 18th St. & Alle-
gheny Ave., Philadelphia, Pa.
Taylor & Fenn Co., Hartford, Ct.

Dynos—
C. & C. Electric Co., Garwood, N. J.
Chicago Flexible Shaft Co., 124 La Salle
Ave., Chicago, Ill.
Crocker-Wheeler Co., Ampere, N. J.
De Laval Steam Turbine Co., Trenton,
N. J.
General Electric Co., Schenectady, N. Y.
Lincoln Motor Works Co., Cleveland, O.
Northern Electrical Mfg. Co., Madison,
Wis.

Ridgway Dynamo & Engine Co., Ridg-
way, Pa.
Sheffield Car Co., Three Rivers, Mich.
B. F. Sturtevant Co., Boston, Mass.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

MERCHANTS
Charles Behlen, 72 Trinity Place, N. Y.
Central Station Improvement Co., Mo-
nacknock Block, Chicago, Ill.
Charles E. Dustin Co., 11 Broadway,
New York.

McDowell & Co., Allegheny, Pa.
Planmueller Engineering Co., First Na-
tional Bank Bldg., Chicago, Ill.
Power Equipment Co., Fisher Bldg., Chi-
cago, Ill.

L. F. Seyfert's Sons, Inc., 437-441 N. 3d
St., Philadelphia, Pa.
Frank Toomey, 127-131 No. 3d St., Phila-
delphia, Pa.

Jacob Ullman, Buffalo, N. Y.
Walsh's Sons & Co., Newark, N. J.
Wickes Bros., Saginaw, Mich.
Yearsley & Levene, 305 N. 3d St., Phila-
delphia, Pa.

Dynos, Battery Charg-
ing—
C. & C. Electric Co., Garwood, N. J.
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Dynos, Electro Plating—
Jas. Clark, Jr., Electric Co., Louisville,
Ky.

General Electric Co., Schenectady, N. Y.
Hanson & Van Winkle Co., Newark, N. J.
U. S. Electro-Galvanizing Co., Brooklyn,
N. Y.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Zucker & Levett & Loeb Co., 526-530 West
25th St., New York.

Ears, Brass, Pail—
Bridgeport Brass Co., 253 B'way, N. Y.
Waterbury Brass Co., Waterbury, Ct.

Ears, Pail and Tub, &c.—
Berger Bros. Co., 231-237 Arch St., Phila-
delphia, Pa.

E. H. Titchener & Co., Binghamton,
N. Y.

Easels, Wire—
(See Household Articles, Wire.)

Eave Trough Hangers—
(See Hangers, Eave Trough.)

Eave Trough Stock—
(See Sheets, Metal, Eave Trough and
Conductor Stock.)

Eave Troughs and Gutters—
American Sheet and Tin Plate Co., Pitts-
burgh, Pa.

Berger Bros. Co., 231-237 Arch St., Phila-
delphia, Pa.

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

Delphos Mfg. Co., Delphos, O.

Eller Mfg. Co., Canton, O.

U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Thos. W. Irwin Mfg. Co., Allegheny, Pa.

Merchant & Evans Co., Philadelphia, Pa.

Ecclesiastical Ware, Gold,
Silver and Silver Plated—
International Silver Co., Meriden, Ct.

Economizers, Fuel—
Green Fuel Economizer Co., Mattewan,
N. Y.

Parker Boiler Co., Pennsylvania Bldg.,
Philadelphia, Pa.

B. F. Sturtevant Co., Boston, Mass.

Edgers, Turf—
American Fork & Hoe Co., Cleveland, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

F. E. Kohler & Co., Canton, O.

Edges, Straight—
Brown & Sharpe Mfg. Co., Providence,
R. I.

Henry Disston & Sons, Philadelphia, Pa.

Keuffel & Esser Co., 127 Fulton St.,
New York.

Pratt & Whitney Co., Hartford, Ct.

Simonds Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

Edges, Straight, Paper
Hangers—
Webster & Perks Tool Co., Springfield, O.

Edging Machines—
Blake & Johnson Co., Waterbury, Ct.

Garvin Machine Co., Spring and Varick
Sts., New York.

Niagara Machine & Tool Works, Buffalo,
N. Y.

Seneca Falls Mfg. Co., Seneca Falls,
N. Y.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Education, Correspondence
School—
American School of Correspondence, Chi-
cago, Ill.

Egg Beaters, Crates—
(See Beaters, Crates.)

Egg Boilers, Wire—
(See Kitchen Articles, Wire.)

Egg Openers—
W. R. Hartigan, Collinsville, Ct.

Taplin Mfg. Co., New Britain, Ct.

8 and 8 Hooks—
(See Hooks, 8 and 8.)

Ejectors—
Eynon-Evans Mfg. Co., 1507 Clearfield St.,
Philadelphia, Pa.

Hancock Inspirator Co., 85-89 Liberty St.,
New York.

Hayden & Derby Mfg. Co., 85-89 Liberty
St., New York.

Lunkenheimer Co., Cincinnati, O.
John H. McGowan Co., Cincinnati, O.

Elbow Catches—
(See Catches, Elbow.)

Elbow Machines, Corrugated and Four-Pieced Pipe—

Alexander Bros., Carnegie, Pa.

Elbow Machines, Pipe and Furnace—

Alexander Bros., Carnegie, Pa.

Elbows and Shoes, Conductor—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Arthur C. Harvey Co., Boston, Mass.
Waite, Ranlet & Co., Boston, Mass.

Elbows, Baby Carriage—

John A. Peckham, New Haven, Ct.

Elbows, Pipe, Conductor—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Arthur C. Harvey Co., Boston, Mass.
Merchant & Evans Co., Philadelphia, Pa.

Elbows, Stove Pipe—

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

S. M. Howes Co., Boston, Mass.

Ohio Stove Pipe & Mfg. Co., New Philadelphia, O.

Election Booths—
(See Buildings, Election Booth.)

Electric Batteries, Bells, &c.—
(See Batteries, Bells, &c.)

Electric Bells and Supplies—

W. R. Ostrander & Co., 22 Dey St., N. Y.

Electric Cut-Outs—
(See Switches and Cut-Outs.)

Electric Fixtures—
(See Gas and Electric Fixtures.)

Electric Light Fittings (Socket Bushings, Cord Adjusters, Socket Hooks, Lamp Attachments for Gas Fixtures)—

W. R. Ostrander & Co., 22 Dey St., N. Y.

Electric Light Guards—
(See Guards, Electric Light.)

Electric Lighting and Power Apparatus—

Crocker-Wheeler Co., Ampere, N. J.

Electric Storage Batteries—
(See Batteries, Electric Storage.)

Electric Woods—

H. A. Stiles & Co., Boston, Mass.

Electrical Alarms—
(See Alarms, Electrical.)

Electrical Outlet and Switch Boxes—
(See Boxes, Electrical Switch and Outlet.)

Electrical Repairs—

Jas. Clark, Jr., Electric Co., Louisville, Ky.

Electrical Trolley Materials—
(See Trolley Materials, Electrical.)

Electrical Wire—
(See Wires, Electrical.)

Electricians' Bits—
(See Bits, Ball Hangers and Electricians.)

Electro-Plating—
(See Plating, Electro.)

Electro Plating Brushes, Dynamoe—
(See Brushes, Dynamoe.)

Electro Plating Supplies—

Hanson & Van Winkle Co., Newark, N. J.
Weston Electrical Instrument Co., New

ark, N. J.

Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.

Electrotype Metal—

Theo. Hertz Metal Co., St. Louis, Mo.
Merchant & Evans Co., Philadelphia, Pa.

Pittsburgh White Metal Co., Pittsburgh.

Electrotype Presses—
(See Presses, Electrotype.)

Electrotyping—

A. Mugford, Hartford, Ct.
St. Louis Electrotype Foundry, St. Louis.

Electrotyping Plumbago—
Joseph Dixon Crucible Co., Jersey City, N. J.

Elevating Machinery—

Brown Hoisting Machinery Co., Cleveland.
Browning Engineering Co., Cleveland, O.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell Co., Inc., Louisville, Ky.
Eastern Machinery Co., New Haven, Ct.

C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.

A. Leachen & Sons Rope Co., St. Louis.
New Jersey Foundry & Machine Co., 9-15

Murray St., New York.
Robins Conveying Belt Co., 17-22 Park

Row, New York.

J. G. Speidel, Reading, Pa.
Storm Mfg. Co., Newark, N. J.

Warsaw Elevator Co., Warsaw, N. Y.
Webster Mfg. Co., 1075-1111 W. 15th St.,

Chicago, Ill.

Wellman-Seaver-Morran Co., Cleveland, O.

Elevator Bolts, Buckets, &c.—
(See Bolts, Buckets, &c.)

Elevator Bucket Attachments, to order—

W. J. Clark & Co., Salem, O.

Elevator Bucket Pumps—
(See Pumps, Elevator Bucket and Purifying Pumps.)

Elevator Buckets and Cups—
(See Buckets and Cups, Elevator.)

Elevator Counter Balance Weights—
(See Weights.)

Elevator Enclosures—

Andrews Wire & Iron Works, Rockford, Ill.

Buffalo Wire Works Co., Buffalo, N. Y.
Clinton Wire Cloth Co., Clinton, Mass.

Edward Darby & Sons, 235-236 Arch St., Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

Eastern Machinery Co., New Haven, Ct.
Estey Wire Works Co., 59 Fulton St., New

York.

Glen Mfg. Co., Ellwood City, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.

Stewart Iron Works Co., Cincinnati, O.
W. S. Tyler Co., Cleveland, O.

Van Dorn Iron Works, Cleveland, O.
Webster Mfg. Co., 1075-1111 W. 15th St.,

Chicago, Ill.
Webster & Perks Tool Co., Springfield, O.

American Furnace & Machine Co., Pitts-
burgh, Pa.
Baltimore Bridge Co., Baltimore, Md.
Belmont Iron Works, Inc., Philadelphia.
Boston Bridge Works, Boston, Mass.
Browning Engineering Co., Cleveland, O.
Fawcuss Machine Co., Pittsburgh, Pa.
Forster-Miller Engineering Co., Pittsburgh.
Garrett-Cromwell Engineering Co., Cleve-
land, O.

A. D. Granger Co., West St. Bldg.,
New York.
E. Keeler Co., Williamsport, Pa.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
Alex Laughlin & Co., Pittsburgh, Pa.
Link-Belt Co., Philadelphia, Pa.
G. W. McClure, Son & Co., Pittsburgh.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
Morgan Engineering Co., Alliance, O.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Pennsylvania Engineering Works, New
Castle, Pa.
Power Equipment Co., Fisher Bldg., Chi-
cago, Ill.
Robins Conveying Belt Co., Park Row
Bldg., New York.

Wm. B. Seafie & Sons Co., Pittsburgh, Pa.
Lewis F. Shoemaker & Co., Harrison
Bldg., Philadelphia, Pa.

S. R. Smythe Co., Pittsburgh, Pa.
Wm. Swindell & Bros., Pittsburgh, Pa.
Hugh L. Thompson, Waterbury, Ct.
Virginia Bridge & Iron Co., Roanoke, Va.
Volkmer & Hagan, Pittsburgh, Pa.
Walworth Mfg. Co., Boston, Mass.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Electrical—
Crocker-Wheeler Co., Ampere, N. J.
General Electric Co., Schenectady, N. Y.
Arthur G. McKee, Cleveland, O.

**Engineers, Electrical, Con-
structing—**
Crocker-Wheeler Co., Ampere, N. J.
Morgan Engineering Co., Alliance, O.
Northern Engineering Works, Detroit,
Mich.

**Engineers, Foundry Con-
structing—**
Morgan Engineering Co., Alliance, O.
Northern Engineering Works, Detroit,
Mich.

J. D. Smith Foundry Supply Co., Cleve-
land, O.
Volkmer & Hagan, Pittsburgh, Pa.

**Engineers, Heating and
Ventilating—**
American Blower Co., Detroit, Mich.
E. Keeler Co., Williamsport, Pa.
Massachusetts Fan Co., Watertown, Mass.
B. F. Sturtevant Co., Boston, Mass.

**Engineers, Heating and
Ventilating, Constructing—**
Bayley Mfg. Co., Milwaukee, Wis.
E. Keeler Co., Williamsport, Pa.

**Engineers, Inspecting and
Consulting—**
Garrett-Cromwell Engineering Co., Cleve-
land, O.

Robert W. Hunt & Co., 66 Broadway,
New York.

Stephen L. M. Lasker, Pennsylvania
Bldg., Philadelphia, Pa.

Engineers, Manufacturing Plants—

Arthur G. McKee, Cleveland, O.
Morgan Engineering Co., Alliance, O.
D. F. Nisbet, Pittsburgh, Pa.
Power Equipment Co., Fisher Bldg., Chi-
cago, Ill.
Virginia Bridge & Iron Co., Roanoke, Va.
Volkmer & Hagan, Pittsburgh, Pa.

Engineers, Mechanical—

Henry Aiken, Pittsburgh, Pa.
American Furnace & Machine Co., Pitts-
burgh, Pa.
Dodge Mfg. Co., Mishawaka, Ind.
Fawcuss Machine Co., Pittsburgh, Pa.
Forster-Miller Engineering Co., Pittsburgh.
Garrett-Cromwell Engineering Co., Cleve-
land, O.

Globe Machine & Stamping Co., Cleve-
land, O.

A. D. Granger Co., West St. Bldg.,
New York.

Robert W. Hunt & Co., 66 Broadway,
New York.

Walter Kennedy, Pittsburgh, Pa.
Otto Kongslow Mfg. Co., Cleveland, O.

Stephen L. M. Lasker, Pennsylvania
Bldg., Philadelphia, Pa.

Link-Belt Co., Philadelphia, Pa.

G. W. McClure, Son & Co., Pittsburgh,
Pa.

Arthur G. McKee, Cleveland, O.

Morgan Construction Co., Worcester, Mass.

Morgan Engineering Co., Alliance, O.

D. F. Nisbet, Pittsburgh, Pa.

Poole Engineering & Machine Co., Balti-
more, Md.

Power Specialty Co., 111 Broadway, New
York.

Walworth Mfg. Co., Boston, Mass.

Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Mechanical, Con- structing—

Henry Aiken, Pittsburgh, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Forster-Miller Engineering Co., Pitts-
burgh, Pa.

Garrett-Cromwell Engineering Co., Cleve-
land, O.

Globe Machine & Stamping Co., Cleve-
land, O.

A. D. Granger Co., West St. Bldg.,
New York.

Julian Kennedy, Pittsburgh, Pa.

Walter Kennedy, Pittsburgh, Pa.

Otto Kongslow Mfg. Co., Cleveland, O.

G. W. McClure, Son & Co., Pittsburgh.

Arthur G. McKee, Cleveland, O.

Morgan Construction Co., Worcester, Mass.

Morgan Engineering Co., Alliance, O.

D. F. Nisbet, Pittsburgh, Pa.

Northern Engineering Works, Detroit,
Mich.

Pennsylvania Engineering Works, New
Castle, Pa.

Power Specialty Co., 111 Broadway, New
York.

Robins Conveying Belt Co., Park Row
Bldg., New York.

S. R. Smythe Co., Pittsburgh, Pa.

Wm. Swindell & Bros., Pittsburgh, Pa.

Hugh L. Thompson, Waterbury, Ct.

Volkmer & Hagan, Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Mechanical. Consulting—

Henry Aiken, Pittsburgh, Pa.
Dodge Mfg. Co., Mishawaka, Ind.
Garrett-Cromwell Engineering Co., Cleveland, O.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
Otto Konigsfrow Mfg. Co., Cleveland, O.
Stephen P. M. Lasker, Pennsylvania Bldg., Philadelphia, Pa.
G. W. McClure, Son & Co., Pittsburgh, Pa.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
D. F. Nisbet, Pittsburgh, Pa.
Power Specialty Co., 111 Broadway, New York.
S. R. Smythe Co., Pittsburgh, Pa.
Hugh L. Thompson, Waterbury, Ct.
Wellman-Seaver-Morgan Co., Cleveland, O.
C. G. Wormer Machinery Co., Detroit, Mich.

Engineers, Mechanical. Designing—

Henry Aiken, Pittsburgh, Pa.
Dodge Mfg. Co., Mishawaka, Ind.
Garrett-Cromwell Engineering Co., Cleveland, O.
Globe Machine & Stamping Co., Cleveland, O.
A. D. Granger Co., West St. Bldg., New York.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
Otto Konigsfrow Mfg. Co., Cleveland, O.
Stephen P. M. Lasker, Pennsylvania Bldg., Philadelphia, Pa.
G. W. McClure, Son & Co., Pittsburgh, Pa.
Arthur G. McKee, Cleveland, O.
Joseph Merritt, Hartford, Ct.
Morgan Construction Co., Worcester, Mass.
Morgan Engineering Co., Alliance, O.
Mummert, Wolf & Dixon Co., Hanover, Pa.
D. F. Nisbet, Pittsburgh, Pa.
Northern Engineering Works, Detroit, Mich.
Pennsylvania Engineering Works, New Castle, Pa.
Power Specialty Co., 111 Broadway, New York.
Robins Conveying Belt Co., Park Row Bldg., New York.
Wm. Swindell & Bros., Pittsburgh, Pa.
Hugh L. Thompson, Waterbury, Ct.
Vollkommer & Hagan, Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.
Engineers, Metallurgical—
Garrett-Cromwell Engineering Co., Cleveland, O.
Henry Souther Engineering Co., Hartford, Ct.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Mining—

Stephen P. M. Lasker, Pennsylvania Bldg., Philadelphia, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Rod Mill. Constructing—

Garrett-Cromwell Engineering Co., Cleveland, O.

Engineers, Rod Mill. Consulting—

Garrett-Cromwell Engineering Co., Cleveland, O.

Engineers, Rod Mill. Designing—

Garrett-Cromwell Engineering Co., Cleveland, O.

Engineers, Steel Buildings—

Arthur G. McKee, Cleveland, O.
D. F. Nisbet, Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.

Engineers, Steel Works and Rolling Mills—

Henry Aiken, Pittsburgh, Pa.
American Furnace & Machine Co., Pittsburgh, Pa.
Forster-Miller Engineering Co., Pittsburgh, Pa.
Garrett-Cromwell Engineering Co., Cleveland, O.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
Arthur G. McKee, Cleveland, O.
G. W. McClure, Son & Co., Pittsburgh, Pa.
Morgan Engineering Co., Alliance, O.
D. F. Nisbet, Pittsburgh, Pa.
S. R. Smythe Co., Pittsburgh, Pa.
Hugh L. Thompson, Waterbury, Ct.
United Engineering & Foundry Co., Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Steel Works and Rolling Mills. Constructing—

Henry Aiken, Pittsburgh, Pa.
Forster-Miller Engineering Co., Pittsburgh, Pa.
Garrett-Cromwell Engineering Co., Cleveland, O.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.
Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.
Ladd & Baker, Real Estate Trust Bldg., Philadelphia, Pa.
Alex. Laughlin & Co., Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh, Pa.
Arthur G. McKee, Cleveland, O.
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Morgan Construction Co., Worcester, Mass.
Morgan Engineering Co., Alliance, O.
D. F. Nisbet, Pittsburgh, Pa.
Northern Engineering Works, Detroit, Mich.
Pennsylvania Engineering Works, New Castle, Pa.
S. R. Smythe Co., Pittsburgh, Pa.
Wm. Swindell & Bros., Pittsburgh, Pa.
United Engineering & Foundry Co., Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Steel Works and Rolling Mills. Consulting—

Henry Aiken, Pittsburgh, Pa.
Ladd & Baker, Real Estate Trust Bldg., Philadelphia, Pa.
Arthur G. McKee, Cleveland, O.
Morgan Construction Co., Worcester, Mass.
D. F. Nisbet, Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.

Engineers, Steel Works and Rolling Mills. Designing—

Henry Aiken, Pittsburgh, Pa.
Garrett-Cromwell Engineering Co., Cleveland, O.
Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.

Kenwood Bridge Co., First National Bank Building, Chicago, Ill.

Ladd & Baker, Real Estate Trust Bldg., Philadelphia, Pa.

Alex. Laughlin & Co., Pittsburgh, Pa.

G. W. McClure, Son & Co., Pittsburgh, Pa.

Arthur G. McKee, Cleveland, O.

Morgan Construction Co., Worcester, Mass.

Morgan Engineering Co., Alliance, O.

D. F. Nisbet, Pittsburgh, Pa.

Pennsylvania Engineering Works, New Castle, Pa.

S. R. Smythe Co., Pittsburgh, Pa.

Wm. Swindell & Bros., Pittsburgh, Pa.

United Engineering & Foundry Co., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Engineers, Steel Works and Rolling Mills. Inspecting—

Garrett-Cromwell Engineering Co., Cleveland, O.

Julian Kennedy, Pittsburgh, Pa.

Walter Kennedy, Pittsburgh, Pa.

G. W. McClure, Son & Co., Pittsburgh, Pa.

Arthur G. McKee, Cleveland, O.

Morgan Construction Co., Worcester, Mass.

D. F. Nisbet, Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Engines—

MERCHANTS.

Charles Behlen, 72 Trinity Place, N. Y.

Carlin Machinery & Supply Co., Allegheny, Pa.

Central Station Improvement Co., Monadnock Block, Chicago, Ill.

Cleveland Belting & Machine Co., Cleveland, O.

W. P. Davis Machine Co., Rochester, N. Y.

Charles E. Dustin Co., 11 Broadway, New York.

Barclay M. Everson, Pittsburgh, Pa.

Hannan & Finton, Springfield, Mass.

John Henning & Son, 1016 E. Susquehanna Ave., Philadelphia, Pa.

W. C. Johnson & Sons Machinery Co., St. Louis, Mo.

McDowell & Co., Allegheny, Pa.

Massachusetts Fan Co., Watertown, Mass.

Edgar M. Moore & Co., Pittsburgh, Pa.

Peterson Construction Co., Pittsburgh, Pa.

Pfannmueller Engineering Co., First National Bank Bldg., Chicago, Ill.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Power Equipment Co., Fisher Bldg., Chicago, Ill.

W. L. Sargent, Pittsburgh, Mass.

L. F. Seyfert's Sons, Inc., 437-441 N. 3d St., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

Frank Toomey, 127-131 N. 3d St., Philadelphia, Pa.

Jacob Ullman, Buffalo, N. Y.

Wickes Bros., Saginaw, Mich.

Woodward, Wight & Co., Ltd., New Orleans, La.

C. C. Wormer Machinery Co., Detroit, Mich.

Yearsley & Levene, 305 N. 3d St., Philadelphia, Pa.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Engines, Agricultural Gasoline—

American Well Works, Aurora, Ill.

Charter Gas Engine Co., Sterling, Ill.

Chicago Flexible Shaft Co., Chicago, Ill.

Du Bois Iron Works, Du Bois, Pa.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Riverside Engine Co., Oil City, Pa.

Engines, Agricultural Steam—

Wickes Bros., Saginaw, Mich.

Engines, Air—

American Well Works, Aurora, Ill.

Ingersoll-Rand Co., 11 Broadway, New York.

John H. McGowan Co., Cincinnati, O.

Southwark Foundry & Machine Co., Philadelphia, Pa.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Robt. Wetherill & Co., Chester, Pa.

Engines, Alcohol—

American Well Works, Aurora, Ill.

Charter Gas Engine Co., Sterling, Ill.

Du Bois Iron Works, Du Bois, Pa.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Engines, Automobile Gasoline—

Otto Konigslow Mfg. Co., Cleveland, O.

Sheffield Car Co., Three Rivers, Mich.

Engines, Automobile Steam—

Mason Regulator Co., Boston, Mass.

Engines, Blowing—

Buckeye Engine Co., Salem, O.

Mackintosh, Hemphill & Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.

Morgan Engineering Co., Alliance, O.

Southwark Foundry & Machine Co., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

Engines, Blowing, Gas—

Bethlehem Steel Co., So. Bethlehem, Pa.

Buckeye Engine Co., Salem, O.

Engines, Condensing—

Rail Engine Co., Erie, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

C. H. Brown Engine Co., Inc., Fitchburg, Mass.

Buckeye Engine Co., Salem, O.

A. D. Granger & Co., Cedar and West Sts., New York.

Mackintosh, Hemphill & Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.

Newport News Ship Building & Dry Dock Co., Newport News, Va.

Providence Engineering Works, Providence, R. I.

Ridgway Dynamo & Engine Co., Ridgway, Pa.

Southwark Foundry & Machine Co., Philadelphia, Pa.

B. F. Sturtevant Co., Boston, Mass.

Vilter Mfg. Co., Milwaukee, Wis.

Robt. Wetherill & Co., Chester, Pa.

Wickes Bros., Saginaw, Mich.

Engines, Corliss—

Rail Engine Co., Erie, Pa.

Thomas Carlin's Sons Co., Allegheny, Pa.

A. D. Granger & Co., Cedar and West Sta., New York.
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Providence Engineering Works, Providence, R. I.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Vilter Mfg. Co., Milwaukee, Wis.
Robt. Wetherill & Co., Chester, Pa.
Wickes Bros., Saginaw, Mich.

Engines, Cross Compound—

Ball Engine Co., Erie, Pa.
Bethlehem Steel Co., So. Bethlehem, Pa.
C. H. Brown Engine Co., Inc., Fitchburg, Mass.
Buckeye Engine Co., Salem, O.
Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
A. D. Granger & Co., Cedar and West Sta., New York.
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Newport News Ship Building & Dry Dock Co., Newport News, Va.
Providence Engineering Works, Providence, R. I.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
B. F. Sturtevant Co., Boston, Mass.
Vilter Mfg. Co., Milwaukee, Wis.
Robt. Wetherill & Co., Chester, Pa.
Wickes Bros., Saginaw, Mich.

Engines, Deep Well Pumping—

American Steam Pump Co., Battle Creek, Mich.
American Well Works, Aurora, Ill.
Charter Gas Engine Co., Sterling, Ill.
Deming Co., Salem, O.
John H. McGowan Co., Cincinnati, O.
Wickes Bros., Saginaw, Mich.

Engines, Fire—

American Well Works, Aurora, Ill.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.

Engines, Garden—

W. & B. Douglas, Middletown, Ct.

Engines, Gas and Gasoline—

American Well Works, Aurora, Ill.
Buckeye Engine Co., Salem, O.
Charter Gas Engine Co., Sterling, Ill.
Du Bois Iron Works, Du Bois, Pa.
Foos Gas Engine Co., Springfield, O.
A. D. Granger Co., West St. Bldg., New York.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Otto Konigsloew Mfg. Co., Cleveland, O.
Riverside Engine Co., Oil City, Pa.
Velte Foundry & Machine Co., Pittsburgh, Pa.

Engines, Gas and Gasoline, Hoisting—

Charter Gas Engine Co., Sterling, Ill.
Du Bois Iron Works, Du Bois, Pa.
Foos Gas Engine Co., Springfield, O.

Engines, Gas and Gasoline Launch—

Automatic Machine Co., Bridgeport, Ct.
Badger State Machine Co., Janesville, Wis.
Charter Gas Engine Co., Sterling, Ill.
Clipper Lawn Mower Co., Dixon, Ill.
Dodge Mfg. Co., Mishawaka, Ind.
Otto Konigsloew Mfg. Co., Cleveland, O.
Providence Engineering Works, Providence, R. I.
Sheffield Car Co., Three Rivers, Mich.

Engines, Gas and Gasoline Pumping—

American Well Works, Aurora, Ill.
Charter Gas Engine Co., Sterling, Ill.
Deming Co., Salem, O.
Du Bois Iron Works, Du Bois, Pa.
Foos Gas Engine Co., Springfield, O.
Riverside Engine Co., Oil City, Pa.

Engines, Gas, Natural, Furnace or Producer Gas—

Buckeye Engine Co., Salem, O.

Engines, Gasoline, Portable—

Charter Gas Engine Co., Sterling, Ill.

Engines, High Speed Horizontal—

American Well Works, Aurora, Ill.
Bayley Mfg. Co., Milwaukee, Wis.
A. D. Granger & Co., Cedar and West Sta., New York.
Ridgway Dynamo & Engine Co., Ridgway, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.

Engines, High Speed Vertical—

American Blower Co., Detroit, Mich.
American Well Works, Aurora, Ill.
Ball Engine Co., Erie, Pa.
Bayley Mfg. Co., Milwaukee, Wis.
Buckeye Engine Co., Salem, O.
Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
A. D. Granger & Co., Cedar and West Sta., Chicago, Ill.
Sheffield Car Co., Three Rivers, Mich.
Southwark Foundry & Machine Co., Philadelphia, Pa.
B. F. Sturtevant Co., Boston, Mass.
Wickes Bros., Saginaw, Mich.

Engines, Hoisting, Mine—

Thomas Carlin's Sons Co., Allegheny, Pa.
Charter Gas Engine Co., Sterling, Ill.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
New Jersey Foundry & Machine Co., 9 Murray St., New York.
Northern Engineering Works, Detroit, Mich.

Vilter Mfg. Co., Milwaukee, Wis.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wickes Bros., Saginaw, Mich.

Engines, Hoisting, Pneumatic—

Thomas Carlin's Sons Co., Allegheny, Pa.
Ingersoll-Rand Co., 11 Broadway, New York.
New Jersey Foundry & Machine Co., 9 Murray St., New York.
Northern Engineering Works, Detroit, Mich.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Engines, Hoisting, Steam—
Bethlehem Steel Co., So. Bethlehem, Pa.
Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.
Thomas Carlin's Sons Co., Allegheny, Pa.
Thomas P. Conard & Co., 119 So. 4th St., Philadelphia, Pa.

Du Bois Iron Works, Du Bois, Pa.
A. D. Granger & Co., Cedar and West Sts., New York.

Q. W. Hunt Co., West New Brighton, N. Y.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Mesta Machine Co., Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9 Murray St., New York.

Soule Steam Feed Works, Meridian, Miss.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wickes Bros., Saginaw, Mich.

Engines, Hydraulic—
(See Motors, Water.)

Engines, Hydrocarbon, Ignition Apparatus for—
Baker & Co., Inc., Newark, N. J.

Engines, Kerosene—
Du Bois Iron Works, Du Bois, Pa.

Engines, Marine—
Automatic Machine Co., Bridgeport, Ct.
Badger State Machine Co., Janesville, Wis.

Charter Gas Engine Co., Sterling, Ill.
Clipper Lawn Mower Co., Dixon, Ill.
Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Newport News Ship Building & Dry Dock Co., Newport News, Va.

Engines, Oil—
Du Bois Iron Works, Du Bois, Pa.
Providence Engineering Works, Providence, R. I.

Sterling Gas Engine Co., Sterling, Ill.

Engines, Portable—
American Well Works, Aurora, Ill.
Thomas Carlin's Sons Co., Allegheny, Pa.

Charter Gas Engine Co., Sterling, Ill.
Du Bois Iron Works, Du Bois, Pa.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

New Jersey Foundry & Machine Co., 9 Murray St., New York.
Stow Flexible Shaft Co., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

Engines, Producer Gas—
Bethlehem Steel Co., So. Bethlehem, Pa.
Buckeye Engine Co., Salem, O.

Du Bois Iron Works, Du Bois, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Providence Engineering Works, Providence, R. I.

Riverside Engine Co., Oil City, Pa.

Engines, Pumping Com-

pound—
American Well Works, Aurora, Ill.
Bethlehem Steel Co., So. Bethlehem, Pa.

A. D. Granger & Co., Cedar and West Sts., New York.

John H. McGowan Co., Cincinnati, O.
Mesta Machine Co., Pittsburgh, Pa.
Newport News Ship Building & Dry Dock Co., Newport News, Va.

Southwark Foundry & Machine Co., Philadelphia, Pa.
Robt. Wetherill & Co., Chester, Pa.

Wickes Bros., Saginaw, Mich.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Engines, Pumping, Geared—

American Well Works, Aurora, Ill.
Buckeye Engine Co., Salem, O.

Charter Gas Engine Co., Sterling, Ill.
Du Bois Iron Works, Du Bois, Pa.
Grant Mfg. & Machine Co., Bridgeport, Ct.

John H. McGowan Co., Cincinnati, O.
Mesta Machine Co., Pittsburgh, Pa.
Riverside Engine Co., Oil City, Pa.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Engines, Pumping Triple Expansion—

Bethlehem Steel Co., So. Bethlehem, Pa.
A. D. Granger & Co., Cedar and West Sts., New York.

John H. McGowan Co., Cincinnati, O.
Mesta Machine Co., Pittsburgh, Pa.
Newport News Ship Building & Dry Dock Co., Newport News, Va.

Southwark Foundry & Machine Co., Philadelphia, Pa.
Robt. Wetherill & Co., Chester, Pa.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Engines, Reversing, Mill—
Geo. A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.

Riverside Engine Co., Oil City, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.

Robt. Wetherill & Co., Chester, Pa.

Engines, Rolling Mill—
Ball Engine Co., Erie, Pa.

Buckeye Engine Co., Salem, O.
Geo. A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.

Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Providence Engineering Works, Providence, R. I.

Riverside Engine Co., Oil City, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.

Robt. Wetherill & Co., Chester, Pa.
Wickes Bros., Saginaw, Mich.

Engines, Rotary Steam—
Soule Steam Feed Works, Meridian, Miss.

Engines, Steeple Compound—
Charles F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

C. W. Hunt Co., West New Brighton, N. Y.

John H. McGowan Co., Cincinnati, O.
Mesta Machine Co., Pittsburgh, Pa.

Newport News Ship Building & Dry Dock Co., Newport News, Va.

Engines, Tandem Compound—
Ball Engine Co., Erie, Pa.

C. H. Brown Engine Co., Inc., Fitchburg, Mass.
Buckeye Engine Co., Salem, O.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

A. D. Granger & Co., Cedar and West Sts., New York.
John H. McGowan Co., Cincinnati, O.

Mackintosh, Hemphill & Co., Pittsburgh, Pa.

- Mesta Machine Co., Pittsburgh, Pa.
 Newport News Ship Building & Dry Dock Co., Newport News, Va.
 Providence Engineering Works, Providence, R. I.
 Ridgway Dynamo & Engine Co., Ridgway, Pa.
 Southwark Foundry & Machine Co., Philadelphia, Pa.
 Vilter Mfg. Co., Milwaukee, Wis.
 Robt. Wetherill & Co., Chester, Pa.
 Wickes Bros., Saginaw, Mich.
Engines, Track—
 Sheffield Car Co., Three Rivers, Mich.
Engines, Traction—
 American Well Works, Aurora, Ill.
Engines, Turbine, Steam—
 General Electric Co., Schenectady, N. Y.
 Oliver Machinery Co., Grand Rapids, Mich.
 Providence Engineering Works, Providence, R. I.
 B. F. Sturtevant Co., Boston, Mass.
Engines, Turbine, Steam, for Marine Work—
 Newport News Ship Building & Dry Dock Co., Newport News, Va.
Engravers and Designers—
 A. Mugford, Hartford, Ct.
 Schwerdtle Stamp Co., Bridgeport, Ct.
Engravers or Sign Brass—
 (See Brass, Sign.)
Engraving, Brass and Steel—
 Schwerdtle Stamp Co., Bridgeport, Ct.
Engraving Lathes, Roll—
 (See Lathes, Roll Engraving.)
Engraving, Photo, Half-tone and Wood—
 A. Mugford, Hartford, Ct.
Ensilage and Feed Cutters—
 (See Cutters, Feed.)
Ensilage Cutter Elevators—
 (See Elevators, Ensilage Cutter.)
Entrances, Cemetery and Park—
 (See Fencing, Gates, &c.)
Envelope Folding Machines—
 (See Folding Machines.)
Equipment, Telegraph and Telephone Pole Line—
 (See Telegraph and Telephone Pole Line Equipment.)
Erasers—
 Alfred Field & Co., 93 Chambers St., N. Y.
 Landers, Frary & Clark, New Britain, Ct.
 Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
Erasers, Rubber—
 Jos. Dixon Crucible Co., Jersey City, N. J.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Escapes, Fire—
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
 Enterprise Foundry & Fence Co., Indianapolis, Ind.
 Exeter Machine Works, Exeter, N. H.
 Forest City Steel & Iron Co., Cleveland, O.
 Glen Mfg. Co., Ellwood City, Pa.
 W. N. Kratzer & Co., Pittsburgh, Pa.
 Stewart Iron Works Co., Cincinnati, O.
 Van Dorn Iron Works Co., Cleveland, O.
 Woodward, Wight & Co., New Orleans, La.
 Wright Wire Co., Worcester, Mass.
Escutcheon Pins—
 (See Pins.)
Escutcheons—
 American Ring Co., Waterbury, Ct.
 Jos. Bardsley, 147-151 Baxter St., N. Y.
 Eagle Lock Co., Terryville, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Piqua Handle & Mfg. Co., Piqua, O.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 Taylor & Boggis Foundry Co., Cleveland, O.
 Yale & Towne Mfg. Co., 9 Murray St., New York.
Excavating Machinery—
 Ingersoll-Rand Co., 11 Broadway, N. Y.
 Jeffrey Mfg. Co., Columbus, O.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
 Wellman-Seaver-Morgan Co., Cleveland, O.
Exhaust Heads—
 (See Heads, Exhaust.)
Exhausters—
 (See Fans.)
Exhausters, Gas—
 American Blower Co., Detroit, Mich.
 Buffalo Forge Co., Buffalo, N. Y.
 Connersville Blower Co., Connersville, Ind.
 B. F. Sturtevant Co., Boston, Mass.
Expanders, Bicycle—
 (See Bicycle Expanders.)
Expanders, Tube—
 American Die & Tool Co., Reading, Pa.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 Richard Dudgeon, 21 Columbia St., N. Y.
 Helwig Mfg. Co., St. Paul, Minn.
 A. L. Henderer's Sons, Wilmington, Del.
 W. H. Nicholson & Co., Wilkes-Barre, Pa.
 Thomas Prosser & Son, 26 Platt St., N. Y.
 Watson-Stillman Co., 26 Cortlandt St., New York.
Expanders, Tube, Pneumatic—
 Helwig Mfg. Co., St. Paul, Minn.
Expanding Dies, Adjustable—
 (See Dies, Adjustable Expanding.)
Expansion Augers, Bits, Bolts, &c.—
 (See Augers, Bits, Bolts, &c.)
Expansions for Lag Screws—
 (See Shields, Expansion Bolt.)
Experimental Work—
 (See Model and Experimental Work.)
Exploders, Cartridge, Cane Tip—
 Susquehanna Casting Co., Wrightsville, Pa.
Extension Bit Holders, Braces, Gates—
 (See Holders, Braces, Gates.)
Extensions for Bits—
 (See Holders, Extension Bit.)
Extinguishers, Fire—
 E. B. Badger & Sons Co., Boston, Mass.
Extinguishers, Lamp—
 U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Extractors, Centrifugal—
American Tool & Machine Co., Boston.

Extractors, Cotter Pin—
Kraeuter & Co., Inc., Newark, N. J.

Extractors, Juice—
Wrightsville Hardware Co., Wrightsville,
Pa.

Extractors or Disorggers.
Fish Hook—

Andrew B. Hendryx Co., New Haven, Ct.

Extractors, Weed—
F. E. Kohler & Co., Canton, O.

Eye Bolt Machines—
Williams, White & Co., Moline, Ill.

Eye Bolts, Trolley—
(See Trolley Materials, Electric.)

Eye Hoes—
(See Hoes, Eye)

Eye Shields, Mica—
J. W. Paxson Co., Philadelphia, Pa.

Eyelet Machines—
Blake & Johnson Co., Waterbury, Ct.

E. J. Manville Machine Co., Waterbury,
Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Eyelet Punches—
(See Punches, Eyelet and Fastener.)

Eyelets, Metallic—
E. B. Stimpson Co., 31 Spruce St., N. Y.

Waterbury Brass Co., Waterbury, Ct.

Eyes, Cook—
Covert Mfg. Co., Troy, N. Y.

Eyes, Dead Bull's, &c.—
Boston & Lockport Block Co., Boston.

Eyes, Drifting Pick—
Hubbard & Co., Pittsburgh, Pa.

Eyes, Hinge—
Western Foundry & Sash Weight Co., 2d
and Miller Sts., St. Louis, Mo.

Eyes, Hot House or Gar-
den—

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Eyes, Railroad Pick—
Hubbard & Co., Pittsburgh, Pa.

Eyes, Screw, with U. S.
Standard Threads—

Delaware Marine Supply & Mfg. Co.,
Wilmington, Del.

Eyes, Shutter—
Diamond Expansion Bolt Co., 9-15 Mur-
ray St., New York.

Eyes, Storm Window, Wire—
Wire Goods Co., Worcester, Mass.

Eyes, Wire Screw—
(See Wire Goods, Bright.)

Face Plate Jaws—
(See Jaws, Face Plate.)

Face Plates, Lathe—
Union Mfg. Co., New Britain, Ct.

Facing Machines, Nut—
Acme Machinery Co., Cleveland, O.

Detrick & Harvey Machine Co., Baltimore,
Md.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Facings, Foundry—
Jos. Dixon Crucible Co., Jersey City, N. J.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleve-
land, O.

Springfield Facing Co., Springfield, Mass.

Western Foundry Supply Co., Cliff and
John Sts., New York.

Factory Buckets, Tubs,
Tanks—

(See Buckets, Tubs, Tanks.)

Factory Scales—
(See Scales, Dormant and Warehouse.)

Factory Ventilating—
(See Ventilating System, Balanced.)

Family Grindstones,
Scales—

(See Grindstones, Scales.)

Fan Motors, Electric—
(See Motors, Electric Fan.)

Fancy Chains—
(See Chains, Wagon and Fancy.)

Fans—

American Blower Co., Detroit, Mich.

Bayley Mfg. Co., Milwaukee, Wis.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Champion Blower & Forge Co., Lancas-
ter, Pa.

Exeter Machine Works, Exeter, N. H.

Green Fuel Economizer Co., Matteawan,
N. Y.

Howard & Morse, 45 Fulton St., N. Y.

Stirling Blower & Pipe Mfg. Co., Hart-
ford, Ct.

B. F. Sturtevant Co., Boston, Mass.

Fans, Electric—

American Blower Co., Detroit, Mich.

Bayley Mfg. Co., Milwaukee, Wis.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

General Electric Co., Schenectady, N. Y.

Green Fuel Economizer Co., Matteawan,
N. Y.

Howard & Morse, 45 Fulton St., N. Y.

Northern Electrical Mfg. Co., Madison,
Wis.

B. F. Sturtevant Co., Boston, Mass.

Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Fans, Exhaust—

American Blower Co., Detroit, Mich.

Bayley Mfg. Co., Milwaukee, Wis.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Champion Blower & Forge Co., Lancas-
ter, Pa.

Geo. P. Clark Co., Windsor Locks, Ct.

Exeter Machine Works, Exeter, N. H.

Green Fuel Economizer Co., Matteawan,
N. Y.

Howard & Morse, 45 Fulton St., N. Y.

Massachusetts Fan Co., Watertown, Mass.

Stirling Blower & Pipe Mfg. Co., Hart-
ford, Ct.

B. F. Sturtevant Co., Boston, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

S. Obermayer Co., Cincinnati, O.

Power Specialty Co., 111 Broadway, New
York.

Jacob Ullman, Buffalo, N. Y.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit,
Mich.

Fans, Gas Cleaning—

Buffalo Forge Co., Buffalo, N. Y.

Fans, Steam—

American Blower Co., Detroit, Mich.

Bayley Mfg. Co., Milwaukee, Wis.

Boston Blower Co., Hyde Park, Mass.

B. F. Sturtevant Co., Hyde Park, Mass.

Farm Bells, Sleds—
(See Bells, Sleds.)

Farriers' Knives—

(See Knives, Farriers'.)

Farriers' Tools—

(See Tools, Farriers'.)

Fastener Punches—

(See Punches, Eyelet and Fastener.)

Fasteners and Hinges, Box—

(See Hinges and Fasteners.)

Fasteners, Basement Win-

dow—
Caldwell Mfg. Co., Rochester, N. Y.

Fasteners, Bedstead—

Acme Steel Goods Co., 2834-2840 Archer

Ave., Chicago, Ill.

Reading Hardware Co., Reading, Pa.

Susquehanna Casting Co., Wrightsville,

Pa.

Fasteners, Belt—

Billings & Spencer Co., Hartford, Ct.

Bristol Co., Waterbury, Ct.

Crescent Belt Fastener Co., Inc., 143 E.

23d St., New York.

Flexible Steel Lacing Co., 71 W. Jackson

Boulevard, Chicago, Ill.

Main Belting Co., 1219 Carpenter St.,

Philadelphia, Pa.

N. Palmer & Co., Bridgeport, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

W. O. Talcott, Providence, R. I.

Upson Nut Co., Cleveland, O.

Fasteners, Bind—

H. B. Ives Co., New Haven, Ct.

Charles Parker Co., Meriden, Ct.

Stanley Works, New Britain, Ct.

Susquehanna Casting Co., Wrightsville,

Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.

Fasteners, Box and Tub—

Acme Steel Goods Co., 2834-2840 Archer

Ave., Chicago, Ill.

Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

Fasteners, Casement—

Caldwell Mfg. Co., Rochester, N. Y.

H. B. Ives Co., New Haven, Ct.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette

St., New York.

Fasteners, Cellar Window—

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette

St., New York.

Fasteners, Chain Door—

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette

St., New York.

Yale & Towne Mfg. Co., 9 Murray St.,

New York.

Fasteners, Conductor Pipe—

Berger Bros. Co., 231-237 Arch St., Phila-

delphia, Pa.

Iwan Bros., Streator, Ill.

Fasteners, Corrugated Steel

Strip—

W. R. Smallwood Mfg. Co., Gowanda,

N. Y.

Fasteners, Cuff, Scarf, &c.—

American Ring Co., Waterbury, Ct.

Fasteners, Ice Box, Lever—

Bernard Gloekler Co., Pittsburgh, Pa.

Reading Hardware Co., Reading, Pa.

Fasteners, Joint, Corru-

gated Steel—

Acme Steel Goods Co., 2834-2840 Archer

Ave., Chicago, Ill.

W. R. Smallwood Mfg. Co., Gowanda,

N. Y.

Fasteners, Sash—

(See Locks, Sash.)

Fasteners, Screen and Storm

Sash—

Parker Wire Goods Co., Worcester, Mass.

Phenix Mfg. Co., Milwaukee, Wis.

Stanley Works, New Britain, Ct.

Wire Goods Co., Worcester, Mass.

Walter W. Woodruff & Sons Co., Mount

Carmel, Ct.

Fasteners, Sheet Roofing—

American Steel & Wire Co., The Rookery,

Chicago, Ill.

Fasteners, Slat, Straw Car-

rier—

Advance Mfg. Co., Racine, Wis.

Fasteners, Tag—

E. B. Stimpson Co., 31 Spruce St., N. Y.

E. H. Titchener & Co., Binghamton, N. Y.

Faucets, Bottling—

Landers, Frary & Clark, New Britain, Ct.

Faucets, Brass—

Clark Novelty Co., Rochester, N. Y.

John H. Graham & Co., 113 Chambers

St., New York.

Humphreys Mfg. Co., Mansfield, O.

Landers, Frary & Clark, New Britain, Ct.

Walworth Mfg. Co., Boston, Mass.

Faucets, Can—

Landers, Frary & Clark, New Britain, Ct.

Taylor & Boggis Foundry Co., Cleve-

land, O.

Faucets, Iron—

Walworth Mfg. Co., Boston, Mass.

Faucets, Measuring—

Enterprise Mfg. Co. of Pa., Philadelphia,

Pa.

Faucets, Self Measuring—

Lane Bros. Co., Poughkeepsie, N. Y.

Faucets, Suction—

Enterprise Mfg. Co. of Pa., Philadelphia,

Pa.

Faucets, Wood—

Boston & Lockport Block Co., Boston.

Fletcher, Terry & Co., Forestville, Ct.

John Sommer's Son, Newark, N. J.

Feed and Ensilage Cutters—

(See Cutters, Feed.)

Feed Boxes—

(See Mangers, Feed.)

Feed Mangers—

(See Mangers, Feed.)

Feed Mills, Pumps, Boiler—

(See Mills, Pumps, Boiler Feed.)

Feed Water Heaters, Puri-

fers, Regulators—

(See Heaters, Purifiers, Regulators.)

Feed Wire, Bare and Insu-

lated—

(See Wires, Electrical.)

Feeders, Automatic Fur-

nace, for Shavings—

Stirling Blower & Pipe Mfg. Co., Hart-

ford, Ct.

Feeders, Boiler—

(See Boiler Feeders.)

Feeders, Steam, Saw Mill—

Pawling & Harnischfeger, Milwaukee,

Wis.

Soule Steam Feed Works, Meridian, Miss.

Feet, Claw, Piano Stool—

John A. Peckham, New Haven, Ct.

Felloe and Turning Webs—

(See Webs, Turning, Felloe, &c.)

Felloe Plates—

(See Plates, Felloe.)

Felting, Hair—

Baeder, Adamson & Co., 210 Chestnut St., Philadelphia, Pa.

Felts, Asphalt Saturated—National Roofing Co., Tonawanda, N. Y.
Stowell Mfg. Co., Jersey City, N. J.**Fence and Wire Stretchers—**

(See Stretchers, Fence and Wire.)

Fence Machines, Wire—

Cyclone Fence Co., Waukegan, Ill.

Fence Posts—

(See Posts.)

Fence Wire—

(See Wire, Iron and Steel, Market, Fence, Stone, &c.)

Fencing, Gates, &c.—

Chester B. Albree Iron Works Co., Allegheny, Pa.

American Steel & Wire Co., The Rookery, Chicago, Ill.

Anchor Post Iron Works, 42 Park Row, New York.

Belmont Iron Works, Inc., Philadelphia, Buffalo Wire Works Co., Inc., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Cyclone Fence Co., Waukegan, Ill.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

De Kaib Fence Co., De Kaib, Ill.

Dillon-Griswold Wire Co., Sterling, Ill.

Dufur & Co., Baltimore, Md.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Estey Wire Works Co., 59 Fulton St., New York.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Glen Mfg. Co., Ellwood City, Pa.

Grand Crossing Tack Co., Grand Crossing, Ill.

Howard & Morse, 45 Fulton St., N. Y.

Keystone Steel & Wire Co., Peoria, Ill.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Mast, Foos & Co., Springfield, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

New Jersey Wire Cloth Co., Trenton, N. J.

Nimmo Fence & Wire Works Co., Norwood, O.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Pittsburgh Steel Co., Pittsburgh, Pa.

Rochelle Wire Mfg. Co., Rochelle, Ill.

Sleeth-Brook & Seaman Co., 253 Broadway, New York.

Spencer Wire Co., Worcester, Mass.

Stewart Iron Works Co., Cincinnati, O.

Van Dorn Iron Works Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

Fencing, Poultry—

Dillon-Griswold Wire Co., Sterling, Ill.

New Jersey Wire Cloth Co., Trenton, N. J.

Nimmo Fence & Wire Works Co., Norwood, O.

Fender Nails—

(See Nails, Fender.)

Fenders and Dashboards—

(See Dashboards and Fenders.)

Fenders and Tips, Rubber—

(See Tips, Fenders, Rubber.)

Fenders, Automobile—

(See Automobile Fenders.)

Fenders, Fire Place—

Buffalo Wire Works Co., Buffalo, N. Y.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

Estey Wire Works Co., 59 Fulton St., New York.

Howard & Morse, 45 Fulton St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Wright Wire Co., Worcester, Mass.

Fenders, Furniture—

Elastic Tip Co., Boston, Mass.

Fenders, Lawn Mower—

Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.

Ferro-Aluminum—

Geo. G. Blackwell, Sons & Co., Ltd., Liverpool, England.

MERCHANTS.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Ferro-Chrome—

Geo. G. Blackwell, Sons & Co., Ltd., Liverpool, England.

Roessler & Hasselacher Chemical Co., 100 William St., New York.

C. Tennant Sons & Co., 76 William St., New York.

Western Foundry Supply Co., Cliff and John Sts., New York.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

Frank Samuel, Harrison Bldg., Philadelphia, Pa.

Ferro-Manganese—

Geo. G. Blackwell, Sons & Co., Ltd., Liverpool, England.

Carnegie Steel Co., Pittsburgh, Pa.

Roessler & Hasselacher Chemical Co., 100 William St., New York.

J. D. Smith Foundry Supply Co., Cleveland, O.

Western Foundry Supply Co., Cliff and John Sts., New York.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

J. W. Paxson Co., Philadelphia, Pa.

Plitt & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Rogers, Brown & Co., Cincinnati, O.

Frank Samuel, Harrison Bldg., Philadelphia, Pa.

C. Tennant Sons & Co., 76 William St., New York.

Ferro-Molybdenum—

Geo. G. Blackwell, Sons & Co., Ltd., Liverpool, England.

Roessler & Hasselacher Chemical Co., 100 William St., New York.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

Ferro-Nickel—

Geo. G. Blackwell, Sons & Co., Ltd., Liverpool, England.

Roessler & Hasselacher Chemical Co., 100 William St., New York.

Ferro-Silicon—

Geo. G. Blackwell Sons & Co., Ltd.,
Liverpool, England.
Carnegie Steel Co., Pittsburgh, Pa.
Western Foundry Supply Co., Cliff and
John Sts., New York.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.
J. Brooks Penno & Co., Boston, Mass.
J. H. Hillman & Son, Pittsburgh, Pa.
J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.
Rogers, Brown & Co., Cincinnati, O.
Frank Samuel, Harrison Bldg., Philadel-
phia, Pa.
Charles G. Shepard, Buffalo, N. Y.
C. Tennant Sons & Co., 76 William St.,
New York.

Ferro-Silicon, Electrolytic—
Roessler & Hasslacher Chemical Co., 100
William St., New York.

Ferro-Sodium—

Geo. G. Blackwell Sons & Co., Ltd.,
Liverpool, England.

Ferro-Tungsten—

Geo. G. Blackwell Sons & Co., Ltd.,
Liverpool, England.
Roessler & Hasslacher Chemical Co., 100
William St., New York.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.
Ferro-Vanadium—
Roessler & Hasslacher Chemical Co., 100
William St., New York.
Vanadium Alloys Co., 25 Broad St., N.Y.

Ferrules—

Boston Pressed Metal Co., Worcester,
Mass.
Bridgeport Brass Co., 233 Broadway, New
York.
M. F. Cahill, Boston, Mass.
U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.
Otto Konigslow Mfg. Co., Cleveland, O.
H. A. Matthews Mfg. Co., Seymour, Ct.
National Tube Co., Pittsburgh, Pa.
John L. Parker Co., Worcester, Mass.
Pratt Chuck Co., Frankfort, N. Y.
Arthur T. Rutter & Co., 256 Broadway,
New York.
Scovill Mfg. Co., Waterbury, Ct.
Sparks-Winchington Co., Ltd., Jackson,
Mich.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Waterbury Brass Co., Waterbury, Ct.
Walter W. Woodruff & Sons Co., Mount
Carmel, Ct.
Worcester Pressed Steel Co., Worcester,
Mass.

Ferrules and Eyelets—

American Ring Co., Waterbury, Ct.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Ferrules, Boiler Flue—

U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Ferrules, Condenser Tube—

Delaware Marine Supply Mfg. Co., Wil-
mington, Del.

U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Fertilizer Distributors—

Bateman Mfg. Co., Greenloch, N. J.
Keystone Farm Machine Co., York, Pa.

Fertilizer Machinery—

Poole Engineering & Machine Co., Bal-
timore, Md.

Thomas Prosser & Son, 26 Platt St., N.Y.

Fiber—

New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 So.
William St., New York.

Field Glasses—

(See Glasses, Opera and Field.)

Field Hoes—

(See Hoes, Garden, Field, Mortar.)

Field Rollers—

(See Rollers, Land and Field.)

Fifth Wheels—

(See Wheels, Fifth.)

Figured Brass—

(See Brass.)

Figures and Letters—

(See Letters, Figures, &c.)

Figures, Ladies' Wire—

Dufur & Co., Baltimore, Md.

**File, Chisel and Awl Han-
dles—**

(See Handles, Chisel, File, Awl, &c.)

File Cleaners—

(See Cleaners, File.)

File Holders—

(See Handles, Detachable Tool.)

File Machinery—

Hess Machine Works, 25th & Callowhill
Sts., Philadelphia, Pa.

Scranton & Co., New Haven, Ct.

File Sharpeners—

American File Sharpener Co., 296 Broad-
way, New York.

Files, Saw—

E. C. Atkins & Co., Indianapolis, Ind.
Henry Disston & Sons, Philadelphia, Pa.
Liveright Bros., Philadelphia, Pa.
Oliver Machinery Co., Grand Rapids,
Mich.

Files and Rasps—

American File Sharpener Co., 296 Broad-
way, New York.

G. & H. Barnett Co., Philadelphia, Pa.

Carver File Co., Philadelphia, Pa.

Henry Disston & Sons, Philadelphia, Pa.

Heller Bros. Co., Newark, N. J.

Liveright Bros., 20th St. & Allegheny
Ave., Philadelphia, Pa.

McCaffrey File Co., 5th & Berk Sts.,
Philadelphia, Pa.

Nicholson File Co., Providence, R. I.

Rex File & Saw Co., Newcomerstown, O.

Simonds Mfg. Co., Fitchburg, Mass.

Stokes Bros. Mfg. Co., Freehold, N. J.

Whitman & Barnes Mfg. Co., Chicago,

Files, Babbit Metal—

Rex File & Saw Co., Newcomerstown, O.

Files, Bill, Letter, &c.—

Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Files, Brass—

Rex File & Saw Co., Newcomerstown, O.

Files, Dentists—

Carver File Co., Philadelphia, Pa.

Liveright Bros., Philadelphia, Pa.

Files, Horse Tooth—

Arcade Mfg. Co., Freeport, Ill.

Files, Jewelers—

G. & H. Barnett Co., Philadelphia, Pa.

Carver File Co., Philadelphia, Pa.

Henry Disston & Sons, Philadelphia, Pa.
 Heller Bros. Co., Newark, N. J.
 Liveright Bros., Philadelphia, Pa.
 McCaffrey File Co., 5th & Berk Sts.,
 Philadelphia, Pa.
 Nicholson File Co., Providence, R. I.

Files, Manicure—
 Carver File Co., Philadelphia, Pa.
 Henry Disston & Sons, Philadelphia, Pa.
 Liveright Bros., 20th St. & Allegheny
 Ave., Philadelphia, Pa.
 McCaffrey File Co., 5th & Berk Sts.,
 Philadelphia, Pa.
 Nicholson File Co., Providence, R. I.

Files, Paper—
 Arcade Mfg. Co., Freeport, Ill.
 Bridgeport Hardware Mfg. Co., Bridge-
 port, Ct.
 Parker Wire Goods Co., Worcester, Mass.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.
 Wire Goods Co., Worcester, Mass.
 Wrightsville Hardware Co., Wrightsville,
 Pa.

Files, Recutting—
 American File Sharpener Co., 236 Broad-
 way, New York.
**Filing Guides and Clamps,
 Saw—**(See Filers, Saw.)

**Filing Machines, Automatic
 Saw—**
 Covell Mfg. Co., Fisher Bldg., Chicago,
 Ill.

Filing Machines, Band Saw—
 (See Setting and Filing Machines, Band
 Saw.)

Filing Machines, Bench—
 Robinson Tool Works, Waterbury, Ct.

Filing Machines, Die—
 Grant Mfg. & Machine Co., Bridgeport,
 Ct.

Filers, Bag—
 John Chatillon & Sons, 85-93 Cliff St.,
 New York.

Filers, Basket Co., Cedar Rapids, Ia.

**Filers for Iron and Steel
 Castings—**

Shelton Metallic Filler Co., Derby, Ct.
 Smooth-On Mfg. Co., Jersey City, N. J.

Filers, Iron—
 S. Obermayer Co., Cincinnati, O.
 J. W. Paxson Co., 1021 N. Delaware Ave.,
 Philadelphia, Pa.

Western Foundry Supply Co., Cliff and
 John Sts., New York.

Filers, Lamp—
 Johnson Mfg. Co., Urbana, O.

Filers, Oiler—
 Gem Mfg. Co., Pittsburgh, Pa.

Filers, Wire Rope—
 Broderick & Bascom Rope Co., St. Louis.
 A. Leschen & Sons Rope Co., St. Louis.

Fillets, Leather—
 A. G. Butler, 284-286 Pearl St., New York.
 Cleveland Galvanizing Works, Cleveland.
 S. Obermayer Co., Cincinnati, O.
 Oliver Machinery Co., Grand Rapids,
 Mich.

Fillets, Metal—
 J. W. Paxson Co., 1021 N. Delaware Ave.,
 Philadelphia, Pa.

Fillets, Wood—
 A. G. Butler, 284-286 Pearl St., New York.
 Cleveland Galvanizing Works, Cleveland.

Oliver Machinery Co., Grand Rapids,
 Mich.

Filter Paper—
 Eimer & Amend, 205 Third Ave., New
 York.

Filter Presses—
 (See Presses, Filter.)

Filters, Oil and Grease—
 National Separator & Machine Co., Con-
 cord, N. H.
 Pittsburgh Gage & Supply Co., Pitts-
 burgh, Pa.

Burt Mfg. Co., Akron, O.
 W. J. Clark Co., Salem, O.

Filters, Water—
 Cleveland Stamping & Tool Co., Cleve-
 land, O.

Landers, Frary & Clark, New Britain, Ct.
 Harrington & King Perforating Co., 224
 N. Union St., Chicago, Ill.

Wm. B. Scaife & Sons, Pittsburgh, Pa.

Finger Bars, Cold Rolled—
 Jones & Laughlin Steel Co., Pittsburgh.

Fingers, Grain Cradle—
 American Fork & Hoe Co., Cleveland, O.

Finials and Vanes, Metal—
 Chattanooga Roofing & Foundry Co.,
 Chattanooga, Tenn.

G. Drouve Co., Bridgeport, Ct.

Eller Mfg. Co., Canton, O.

Merchant & Evans Co., 517 Arch St.,
 Philadelphia, Pa.

Finials, Iron—
 (See Iron, Brass and Bronze, Ornamental.)

Finishing Nails—
 (See Tacks, Brads, Nails, &c.)

**Finishing, Sheer and
 Swiss—**

I. E. Palmer, Middletown, Ct.

Firearms—
 (See Guns, Pistols, Revolvers, &c.)

Fire Bells, Brick—
 (See Bells, Brick Fire.)

Fire Boat Machinery—
 Charles F. Elmes Engineering Works, 233
 Fulton St., Chicago, Ill.

Fire Buckets, Clay, &c.—
 (See Buckets, Clay, &c.)

**Fire Door and Shutter
 Hardware—**

Allith Mfg. Co., 122-124 S. Green St.,
 Chicago, Ill.

Lane Bros. Co., Poughkeepsie, N. Y.

**Fire Door Arches and Piers
 for Boilers—**

Cyrus Borgner Co., 23d St., above Race,
 Philadelphia, Pa.

Fire Doors—
 (See Doors and Shutters, Iron and Steel.)

**Fire Escapes, Extinguish-
 ers—**

(See Escapes, Extinguishers.)

Fire Place Fenders—
 (See Fenders, Fire Place.)

Fire Pots, Tinnern—
 (See Furnaces, Plumbers' and Tinnerns.)

**Fire Proof Building Mate-
 rial—**

(See Building Material, Fire Proof.)

Fire Proof Roofing—
 (See Roofing, Fire Proof.)

Fire Proof Vaults—
 (See Vaults, Fire and Burglar Proof.)

**Fire Proof Window
 Frames—**

(See Window Frames and Sash, Fire
 Proof.)

Fire Sets—
(See Shovels, Tongs, Pokers, Fire Sets, &c.)

Firemen's Trumpets—
(See Trumpets, Firemen's, Silver Plated.)

Fish Plates, Scalars, Stringers, Traps—
(See Plates, Scalars, Stringers, Traps.)

Fishing Reels—
(See Reels, Fishing.)

Fishing Tackle—
Clark, Horrocks Co., Utica, N. Y.

Dame, Stoddard & Co., Boston, Mass.
Andrew B. Hendryx Co., New Haven, Ct.

Horton Mfg. Co., Bristol, Ct.

Fitters, Pipe—
John H. McGowan Co., Cincinnati, O.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Fittings, Ammonia—
Stanley G. Flagg & Co., Philadelphia, Pa.

Lunkenheimer Co., Cincinnati, O.
Vilter Mfg. Co., Milwaukee, Wis.

J. H. Williams & Co., Brooklyn, N. Y.

Fittings, Automobile—
Worcester Pressed Steel Co., Worcester, Mass.

Fittings, Bicycle—
Crosby Co., Buffalo, N. Y.

Worcester Pressed Steel Co., Worcester, Mass.

Fittings, Roller—
National Tube Co., Pittsburgh, Pa.

Fittings, Carriage—
Worcester Pressed Steel Co., Worcester, Mass.

Fittings, Flanged, Pipe—
Abendroth & Root Mfg. Co., Newburgh, N. Y.

American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.

Jefferson Union Co., Lexington, Mass.

Lynchburg Foundry Co., Lynchburg, Va.

Morse Iron Works, Erie, Pa.

National Tube Co., Pittsburgh, Pa.

Philadelphia Roll & Machine Co., 23d & Washington Ave., Philadelphia, Pa.

Pittsburgh Gage & Supply Co., Pittsburgh, Pa.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Walworth Mfg. Co., Boston, Mass.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Fittings, Furnace—
S. M. Howes Co., Boston, Mass.

Fittings, Hydraulic—
Abendroth & Root Mfg. Co., Newburgh, N. Y.

American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

National Tube Co., Pittsburgh, Pa.

Pittsburgh Gage & Supply Co., Pittsburgh, Pa.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Fittings, Malleable Iron—
Stanley G. Flagg & Co., 424 N. 19th St., Philadelphia, Pa.

Fittings, Pine—
Abendroth & Root Mfg. Co., Newburgh, N. Y.

American Cast Iron Pipe Co., Birmingham, Ala.

American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.

Best Mfg. Co., Pittsburgh, Pa.

Chambersburg Engineering Co., Chambersburg, Pa.

Dimmick Pipe Co., Birmingham, Ala.

C. A. Dreishach Foundry & Machine Co., New Haven, Ct.

Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.

Humphries Mfg. Co., Mansfield, O.

Jarecki Mfg. Co., Erie, Pa.

Jefferson Union Co., Lexington, Mass.

Lebanon Steel Casting Co., Lebanon, Pa.

Lynchburg Foundry Co., Lynchburg, Va.

Charles Millar & Son Co., Utica, N. Y.

Morse Iron Works, Erie, Pa.

National Tube Co., Pittsburgh, Pa.

Ohio Brass Co., Mansfield, O.

Pittsburgh Gage & Supply Co., Pittsburgh, Pa.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Wm. Powell Co., Cincinnati, O.

United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York.

Walworth Mfg. Co., Boston, Mass.

Watson-Stillman Co., 26 Cortlandt St., New York.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Fittings, Railing—
National Tube Co., Pittsburgh, Pa.

Fittings, Screwed, Pipe—
Abendroth & Root Mfg. Co., Newburgh, N. Y.

Fittings, Soil Pipe—
J. Howard Lingle Co., Bellefonte, Pa.

Fittings, Steam—
Abendroth & Root Mfg. Co., Newburgh, N. Y.

Charles F. Elmes Engineering Works, 253 Fulton St., Chicago, Ill.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Jarecki Mfg. Co., Erie, Pa.

Jefferson Union Co., Lexington, Mass.

Lebanon Steel Casting Co., Lebanon, Pa.

Lunkenheimer Co., Cincinnati, O.

Charles Millar & Son Co., Utica, N. Y.

Morse Iron Works, Erie, Pa.

National Tube Co., Pittsburgh, Pa.

Ohio Brass Co., Mansfield, O.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Wm. Powell Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Fittings, Tramway—
Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Fittings, Wire Rope—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Hazard Mfg. Co., Wilkes-Barre, Pa.

A. Leschen & Sons Rope Co., St. Louis, Mo.

Waterbury Co., 69 South St., New York.

Williamsport Wire Rope Co., Williamsport, Pa.

Fixtures and Furniture—
Bank—
(See Bank Fixtures and Furniture.)

Fixtures, Bathroom—
(See Bathroom Toilet Specialties.)

Fixtures, Butchers'—
Bernard Gloekler Co., Pittsburgh, Pa.
Fixtures, Curtain Rod—
(See Curtain Rod Fixtures.)
Fixtures, Fire Door—
(See Fire Door and Shutter Hardware.)
Fixtures, Gasoline, Gas—
American Gas Machine Co., Albert Lea, Minn.

Fixtures, Grindstone, Stable, Store—
(See Grindstone, Stable, Store.)

Fixtures, Hay Rack—
(See Clamps, Hay Rack.)

Fixtures, Lighting—
(See Chandeliers and Wall Fixtures.)

Fixtures, Lightning Rod—
(See Lightning Rod Fixtures.)

Fixtures, Window Sash—
(See Window Sash Fixtures.)

Flag Pole Sockets—
(See Sockets, Flag Pole.)

Flagstaff Holders—
(See Holders, Flagstaff.)

Flagstaffs, Iron—
Nimmo Fence & Wire Works Co., Norwood, O.

Flange Couplings—
(See Couplings, Flange.)

Flange Facing Machines—
Detrick & Harvey Machine Co., Baltimore, Md.
Niles-Bement-Pond Co., 111 Broadway, New York.

Flanges, Ammonia—
Indianapolis Rod Forging Co., Indianapolis, Ind.

Flanges, Cast Iron—
American Spiral Pipe Works, 1173-1201 Paulina St., Chicago, Ill.

Flanges, Forged Steel—
American Spiral Pipe Works, 1173-1201 Paulina St., Chicago, Ill.

Thomas Prosser & Son, 26 Platt St., N.Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
Sundberg, Kropp & Co., 1121-1131 W. 21st St., Chicago, Ill.

Flanges, Man and Flue Hole—
R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Flanges, Pipe—
American Spiral Pipe Works, 1173-1201 Paulina St., Chicago, Ill.

Flanges, Roof—
(See Saddles, Pipe.)

Flanges, Soft Welded Steel—
American Spiral Pipe Works, 1173-1201 Paulina St., Chicago, Ill.

Flanges, Steel Pipe—
Abendroth & Root Mfg. Co., Newburgh, N. Y.

Best Mfg. Co., Pittsburgh, Pa.
Thomas Prosser & Son, 26 Platt St., N.Y.

Flanges, Vehicle Wheel—
Sparks-Withington Co., Ltd., Jackson, Mich.

Flanges, Weldless, Steel—
Best Mfg. Co., Pittsburgh, Pa.
Chrome Steel Works, Chrome, N. J.
E. Koeler Co., Williamsport, Pa.
Pressed Steel Tank Co., Milwaukee, Wis.

Flanging Clamps—
(See Clamps, Flanging.)

Flanging Machines—
Alliance Machine Co., Alliance, O.
Niagara Machine & Tool Works, Buffalo, N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.

Flash Light Parts—
(See Automobile Parts.)

Flashing, Side Wall, Metal—
Niles Corrugating Co., Niles, O.

Flasks, Foundry Snap—
J. Howard Lingle Co., Bellefonte, Pa.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
J. D. Smith Foundry Supply Co., Cleveland, O.

Flasks, Silver Plated—
International Silver Co., Meriden, Ct.

Flasks, Steel—
Meehan Boiler & Construction Co., Lowellville, O.
S. Obermayer Co., Cincinnati, O.

Flat Link Chains—
(See Chains, Flat Link.)

Flat Top Desks—
(See Desks, Roll and Flat Top.)

Flexible Hangers—
(See Hangers, Hinge.)

Flexible Shafts—
(See Shafts, Flexible.)

Floats, Copper Ball—
Hercules Brass & Bell Foundry, Cincinnati, O.

Otto Königsglow Mfg. Co., Cleveland, O.
Naugatuck Mfg. Co., Naugatuck, Ct.
Worcester Pressed Steel Co., Worcester, Mass.

Floats, Counter—
Louis Sacks, Newark, N. J.

Floats, Fish Line—
Horton Mfg. Co., Bristol, Ct.

Floats, Tank—
W. R. Ostrander & Co., 22 Dey St., N. Y.

Flocks, Cotton—
Peckman Mfg. Co., Newark, N. J.

Floor and Base Knobs—
(See Knobs, Base and Floor.)

Floor Bars—
(See Chisels, Floor and Ripping.)

Floor Chisels, Stands—
(See Chisels, Stands.)

Floor Scraping Machines—
(See Scrapers, Floor.)

Flooring, Bridge—
American Bridge Co. of New York, 42 Broadway, New York.

Youngtown Iron & Steel Roofing Co., Youngtown, O.

Flooring, Fire Proof—
Youngtown Iron & Steel Roofing Co., Youngtown, O.

Floors, Perforated Steel—
Harrington & King Perforating Co., Chicago, Ill.

Floors, Wire Cloth—
Buffalo Wire Works Co., Inc., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.
Dufur & Co., Baltimore, Md.

Howard & More, 45 Fulton St., N. Y.
Ludlow-Saylor Wire Co., St. Louis, Mo.

Michigan Wire Cloth Co., Detroit, Mich.
 Wright Wire Co., Worcester, Mass.
Flour Mill Machinery—
 Poole Engineering & Machine Co., Baltimore, Md.
Flour Sieves, Sifters, Testers—
 (See Sieves, Sifters, Testers.)
Flower Bed Borders—
 (See Guards, Lawn and Flower Bed.)
Flower Guards, Pickers—
 (See Guards, Pickers.)
Flower Pot Brackets, Stands—
 (See Brackets, Stands.)
Flue Cleaners, Ventilators—
 (See Cleaners, Ventilators.)
Flue Expanders—
 (See Expanders, Tube.)
Flumes, Steel—
 Franklin Boiler Works Co., Troy, N. Y.
 E. Keeler Co., Williamsport, Pa.
 Petroleum Iron Works Co., Sharon, Pa.
Fluor Spar—
 J. Tatnall Lea & Co., 19 So. 12th St., Philadelphia, Pa.
 S. Obermayer Co., Cincinnati, O.
Flush Pipes, Rings—
 (See Pipes, Rings.)
Fluted Drills—
 (See Drills, Fluted.)
Fluters—
 Griswold Mfg. Co., Erie, Pa.
 North Bros. Mfg. Co., Philadelphia, Pa.
Fly Killers, Traps—
 (See Killers, Traps.)
Fly Wheels—
 H. W. Caldwell & Son Co., Western Ave. & 17th St., Chicago, Ill.
 Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
 Dodge Mfg. Co., Mishawaka, Ind.
 Falls Rivet & Machine Co., Cuyahoga Falls, O.
 A. D. Granger Co., West St. Bldg., N. Y.
 Jones & Laughlin Steel Co., Pittsburgh, Pa.
 Mackintosh, Hemphill & Co., Pittsburgh, Pa.
 Pennsylvania Engineering Works, New Castle, Pa.
 Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia.
 Poole Engineering & Machine Co., Baltimore, Md.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Wickes Bros., Saginaw, Mich.
Fodder Shredders, Dry—
 (See Shredders, Dry Fodder.)
Foil, Platinum—
 Baker & Co., Inc., Newark, N. J.
 J. Bishop & Co., Malvern, Pa.
Folding Bed Hinges—
 (See Hinges, Folding Bed.)
Folding Gates—
 (See Gates, Extension.)
Folding Machinery, Paper—
 Chambers Bros. Co., 52d St. below Lancaster Ave., Philadelphia, Pa.
 Chas. Leffler & Co., Brooklyn, N. Y.
Folding Machines, Envelope—
 R. E. Kidder, Worcester, Mass.
Foot Powers—
 (See Powers, Foot.)

Forcing Machines, Hand or Power—
 Niles-Bement-Pond Co., 111 Broadway, New York.
Forged Bolts, Unions—
 (See Bolts, Unions.)
Forged Steel, Axles, Car—
 (See Axles, Forged Steel.)
Forges—
 Acme Machinery Co., Cleveland, O.
 American Gas Furnace Co., 23 John St., New York.
 Billings & Spencer Co., Hartford, Ct.
 Boynton & Plummer, Worcester, Mass.
 O. C. Bradley & Son, Syracuse, N. Y.
 Buffalo Forge Co., Buffalo, N. Y.
 Champion Blower & Forge Co., Lancaster, Pa.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 Ingersoll-Rand Co., 11 Broadway, New York.
 Miner & Peck Mfg. Co., New Haven, Ct.
 Monarch Engineering & Mfg. Co., Baltimore, Md.
 Silver Mfg. Co., Salem, O.
 R. F. Sturtevant Co., Boston, Mass.
 Tate, Jones & Co., Inc., Pittsburgh, Pa.
 Wickes Bros., Saginaw, Mich.
MERCHANTS.
 Carlin Machinery & Supply Co., Inc., Allegheny, Pa.
 General Supply-Iron-Steel & Rail Co., Cincinnati, O.
 Hill, Clarke & Co., Boston, Mass.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 C. C. Wormer Machinery Co., Detroit.
Forges, Coal Oil—
 Burke Machinery Co., Cleveland, O.
Forges, Compressed Air—
 Buffalo Forge Co., Buffalo, N. Y.
Forges, Gas—
 American Gas Furnace Co., 23 John St., New York.
 Ingersoll-Rand Co., 11 Broadway, New York.
 Monarch Engineering & Mfg. Co., Baltimore, Md.
Forges, Portable—
 (See Forges.)
Forging and Bending Machines—
 E. W. Bliss Co., Brooklyn, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Watson-Stillman Co., 26 Cortlandt St., New York.
Forging Machines—
 Acme Machinery Co., Cleveland, O.
 Adriance Machine Works, Brooklyn, N. Y.
 Ajax Mfg. Co., Cleveland, O.
 Beaudry & Co., Boston, Mass.
 Billings & Spencer Co., Hartford, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 National Machinery Co., Tiffin, O.
 Scranton & Co., New Haven, Ct.
 Williams, White & Co., Moline, Ill.
MERCHANTS.
 Manning, Maxwell & Moore, Inc., 25-29 Liberty St., New York.
 Marshall & Hushart Machinery Co., 2 S. Canal St., Chicago, Ill.

Joseph T. Ryerson & Son, 12-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Forging Machines, Bolt-

Acme Machinery Co., Cleveland, O.

Ajax Mfg. Co., Cleveland, O.

National Machinery Co., Tiffin, O.

Williams, White & Co., Inc., Moline, Ill.

Forging Machines, Hand or Power-

Beaudry & Co., Boston, Mass.

Scranton & Co., New Haven, Ct.

Williams, White & Co., Moline, Ill.

Forging Machines, Nut-

Acme Machinery Co., Cleveland, O.

National Machinery Co., Tiffin, O.

Forging Machines, Sheet Work-

Adriance Machine Works, Brooklyn, N. Y.

E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., Hastings, Mich.

Forgings, Automobile-

Barnett Drop Forging Co., Easthampton, Mass.

Bethlehem Steel Co., So. Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Cambria Forge Co., Johnstown, Pa.

Canton Drop Forging & Mfg. Co., Canton, O.

Cape Ann Tool Co., Pigeon Cove, Mass.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Cleveland Drop Forging Co., Cleveland, O.

Columbus Forge & Iron Co., Columbus, O.

Consolidated Mfg. Co., Toledo, O.

General Drop Forge Co., Buffalo, N. Y.

Indianapolis Drop Forging Co., Indianapolis, Ind.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Page-Storms Drop Forge Co., Chicopee, Mass.

Park Drop Forge Co., Cleveland, O.

Thomas Frosser & Son, 26 Platt St., N.Y.

Revere Drop Forge Co., Revere, Mass.

Richmond Forgings Corporation, Richmond, Va.

Strieby & Foote Co., Newark, N. J.

Tindel-Morris Co., Eddystone, Pa.

Transue & Williams Co., Alliance, O.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Wyman & Gordon, Worcester, Mass.

Forging, Bicycle-

Belden Machine Co., New Haven, Ct.

Billings & Spencer Co., Hartford, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Cleveland Drop Forging Co., Cleveland, O.

Columbus Forge & Iron Co., Columbus, O.

Consolidated Mfg. Co., Toledo, O.

Richard Eccles Co., Auburn, N. Y.

General Drop Forge Co., Buffalo, N. Y.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Page-Storms Drop Forge Co., Chicopee, Mass.

Park Drop Forge Co., Cleveland, O.

Richmond Forgings Corporation, Richmond, Va.

M. Seward & Son Co., New Haven, Ct.

Strieby & Foote Co., Newark, N. J.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

Forgings, Bronze-

Barnett Drop Forging Co., Easthampton, Mass.

Billings & Spencer Co., Hartford, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Cape Ann Tool Co., Pigeon Cove, Mass.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

Cleveland Drop Forging Co., Cleveland, O.

Columbus Forge & Iron Co., Columbus, O.

General Drop Forge Co., Buffalo, N. Y.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Page-Storms Drop Forge Co., Chicopee, Mass.

Park Drop Forge Co., Cleveland, O.

Phosphor Bronze Smelting Co., Ltd., 220 Washington Ave., Philadelphia.

Richmond Forgings Corporation, Richmond, Va.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

Forgings, Car-

American Bridge Co. of New York, 42 Broadway, New York.

American Iron & Steel Mfg. Co., Lebanon, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Cambria Forge Co., Johnstown, Pa.

Canton Drop Forging & Mfg. Co., Canton, O.

Carnegie Steel Co., Pittsburgh, Pa.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

Cleveland City Forge & Iron Co., Cleveland, O.

Cleveland Drop Forging Co., Cleveland, O.

Columbus Forge & Iron Co., Columbus, O.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

New Castle Forge & Bolt Co., New Castle, Pa.

Richmond Forgings Corporation, Richmond, Va.

Transue & Williams Co., Alliance, O.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Forgings, Carriage-

Belden Machine Co., New Haven, Ct.

Billings & Spencer Co., Hartford, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

C. C. Bradley & Son, Inc., Syracuse, N. Y.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Cleveland Drop Forging Co., Cleveland, O.

Richard Eccles Co., Auburn, N. Y.

General Drop Forge Co., Buffalo, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

Millersburgh Fifth Wheel Co., Millersburgh, Pa.

Page-Storms Drop Forge Co., Chicopee, Mass.

Scranton Forging Co., Scranton, Pa.

M. Seward & Son Co., New Haven, Ct.

Strieby & Foote Co., Newark, N. J.

Wyman & Gordon, Worcester, Mass.

Forgings, Chrome Nickel Steel—

Cape Ann Tool Co., Pigeon Cove, Mass.
 Cleveland Drop Forging Co., Cleveland, O.
 Thomas Prosser & Son, 26 Platt St., N.Y.
 Tindel-Morris Co., Eddystone, Pa.

Forgings, Chrome Steel—

Chrome Steel Works, Chrome, N. J.
 Thomas Prosser & Son, 26 Platt St., N.Y.

Forgings, Coal Breaker—

Richmond Forgings Corporation, Richmond, Pa.

Forgings, Copper—

Barnett Drop Forging Co., Easthampton, Mass.

Billings & Spencer Co., Hartford, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Cape Ann Tool Co., Pigeon Cove, Mass.
 Chicago Drop Forge & Foundry Co., Kensington, Ill.

Cleveland Drop Forging Co., Cleveland, O.
 General Drop Forge Co., Buffalo, N. Y.

Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Homer F. Livermore, Boston, Mass.
 Page-Storms Drop Forge Co., Chicopee, Mass.

Park Drop Forge Co., Cleveland, O.
 Richmond Forgings Corporation, Richmond, Va.

Transue & Williams Co., Alliance, O.
 J. H. Williams & Co., Brooklyn, N. Y.
 Wyman & Gordon, Worcester, Mass.

Forgings, Crank—

E. W. Bliss Co., Brooklyn, N. Y.
 Cleveland Drop Forging Co., Cleveland, O.
 Keystone Drop Forge Works, Chester, Pa.
 Page-Storms Drop Forge Co., Chicopee, Mass.

Park Drop Forge Co., Cleveland, O.
 Portsmouth Forge, Portsmouth, N. H.

Forgings, Cream Separator, Bowl—

E. W. Bliss Co., Brooklyn, N. Y.

Forgings, Die—

Hay-Budden Mfg. Co., Brooklyn, N. Y.

Forgings, Drop—

American Spiral Pipe Works, 1173-1201 Paulina St., Chicago, Ill.

Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.

Barnett Drop Forging Co., Easthampton, Mass.

Belden Machine Co., New Haven, Ct.

Bethlehem Steel Co., So. Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Cambria Forge Co., Johnstown, Pa.

Canton Drop Forging & Mfg. Co., Canton, O.

Cape Ann Tool Co., Pigeon Cove, Mass.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Cleveland Drop Forging Co., Cleveland, O.

Columbus Forge & Iron Co., Columbus, O.

Consolidated Mfg. Co., Toledo, O.

Detroit Forging Co., Detroit, Mich.

Richard Eccles Co., Auburn, N. Y.

General Drop Forging Co., Buffalo, N. Y.

Helwig Mfg. Co., St. Paul, Minn.

Indianapolis Drop Forging Co., Indianapolis, Ind.

Janney, Steinmetz & Co., Philadelphia.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

M. Lanz & Sons, Pittsburgh, Pa.

Thomas Laughlin Co., Portland, Me.

Homer F. Livermore, Boston, Mass.

Moore Drop Forging Co., Springfield, Mass.

New Castle Forge & Bolt Co., New Castle, Pa.

O. K. Tool Holder Co., Shelton, Ct.

Page-Storms Drop Forge Co., Chicopee, Mass.

Park Drop Forge Co., Cleveland, O.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia.

Thomas Prosser & Son, 26 Platt St., N.Y.

Revere Drop Forge Co., Revere, Mass.

Rhode Island Tool Co., Providence, R. I.

Richmond Forgings Corporation, Richmond, Va.

Scranton Forging Co., Scranton, Pa.

M. Seward & Son Co., New Haven, Ct.

Smith & Hemenway Co., 108-110 Duane St., New York.

Strieby & Foote Co., Newark, N. J.

Sundberg, Kropp & Co., 1121-1131 W. 21st St., Chicago, Ill.

Titusville Forge Co., Titusville, Pa.

Transue & Williams Co., Alliance, O.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

Western Malleable Steel Co., Detroit, Mich.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

Forgings, Drop, Cold—

Worcester Pressed Steel Co., Worcester, Mass.

Forgings, Gas Engine—

Cape Ann Tool Co., Pigeon Cove, Mass.

Cleveland Drop Forging Co., Cleveland, O.

Page-Storms Drop Forge Co., Chicopee, Mass.

Park Drop Forge Co., Cleveland, O.

Thomas Prosser & Son, 26 Platt St., N.Y.

Tindel-Morris Co., Eddystone, Pa.

Forgings, Gear Blank—

Cape Ann Tool Co., Pigeon Cove, Mass.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

Cleveland Drop Forging Co., Cleveland, O.

Columbus Forge & Iron Co., Columbus, O.

General Drop Forge Co., Buffalo, N. Y.

Park Drop Forge Co., Cleveland, O.

Portsmouth Forge, Portsmouth, N. H.

Thomas Prosser & Son, 26 Platt St., N.Y.

Richmond Forgings Corporation, Richmond, Va.

Forgings, Gun—

Belden Machine Co., New Haven, Ct.

Bethlehem Steel Co., So. Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.

Chicago Drop Forge & Foundry Co., Kensington, Ill.

E. D. Clapp Mfg. Co., Auburn, N. Y.

Cleveland Drop Forging Co., Cleveland, O.

Columbus Forge & Iron Co., Columbus, O.

General Drop Forge Co., Buffalo, N. Y.

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Park Drop Forge Co., Cleveland, O.

Portsmouth Forge, Portsmouth, N. H.

Thomas Prosser & Son, 26 Platt St., N.Y.

J. H. Williams & Co., Brooklyn, N. Y.

Wyman & Gordon, Worcester, Mass.

Forgings, Hammered—

Western Malleable Steel Co., Detroit, Mich.

Forgings, Handle—

Belden Machine Co., New Haven, Ct.
Billings & Spencer Co., Hartford, Ct.
Chicago Drop Forge & Foundry Co.,

Kensington, Ill.
Cleveland Drop Forging Co., Cleveland, O.
Columbus Forge & Iron Co., Columbus, O.
General Drop Forge Co., Buffalo, N. Y.
Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Page-Storms Drop Forge Co., Chicopee, Mass.

J. H. Williams & Co., Brooklyn, N. Y.
Wyman & Gordon, Worcester, Mass.

Forgings, Iron, Special—

Chester B. Albee Iron Works Co., Allegheny, Pa.

Barnett Drop Forging Co., Easthampton, Mass.

Belden Machine Co., New Haven, Ct.
Billings & Spencer Co., Hartford, Ct.

E. W. Bliss Co., Brooklyn, N. Y.
Boston & Lockport Block Co., Boston.

Cambria Forge Co., Johnstown, Pa.
Canton Drop Forging & Mfg. Co., Canton, O.

Cape Ann Tool Co., Pigeon Cove, Mass.
Chicago Drop Forge & Foundry Co., Ken-

sington, Ill.
E. D. Clapp Mfg. Co., Auburn, N. Y.

Cleveland City Forge & Iron Co., Cleveland, O.

Cleveland Drop Forging Co., Cleveland, O.
Cleveland Punch & Shear Works Co.,

Cleveland, O.
Columbus Forge & Iron Co., Columbus, O.

Richard Eccles Co., Auburn, N. Y.
Detroit Forging Co., Detroit, Mich.

Fort Pitt Forge Co., Pittsburgh, Pa.
General Drop Forge Co., Buffalo, N. Y.

Grabler Mfg. Co., Cleveland, O.
Heppenstall Forge & Knife Co., Pitts-

burgh, Pa.
Howard Iron & Tool Co., Bellefonte, Pa.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.

McDougall & Potter Co., 606-612 W. 55th St., New York.

New Castle Forge & Bolt Co., New Castle, Pa.

O. K. Tool Holder Co., Shelton, Ct.
Page-Storms Drop Forge Co., Chicopee,

Mass.
Park Drop Forge Co., Cleveland, O.

Pittsburgh Forge & Iron Co., Pittsburgh, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.
Portsmouth Forge, Portsmouth, N. H.

Richmond Forgings Corporation, Richmond, Va.

Wm. B. Scalf & Sons Co., Pittsburgh.

M. Seward & Son Co., New Haven, Ct.
Strieby & Foote Co., Newark, N. J.

Titusville Forge Co., Titusville, Pa.
Transue & Williams Co., Alliance, O.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

J. H. Williams & Co., Brooklyn, N. Y.
Wyman & Gordon, Worcester, Mass.

Forgings, Locomotive—

Portsmouth Forge, Portsmouth, N. H.

Forgings, Malleable—

Chicago Drop Forge & Foundry Co., Kensington, Ill.

Columbus Forge & Iron Co., Columbus, O.

Portsmouth Forge, Portsmouth, N. H.

Forgings, Manganese**Bronze—**

Billings & Spencer Co., Hartford, Ct.
Chicago Drop Forge & Foundry Co.,

Kensington, Ill.
Cleveland Drop Forging Co., Cleveland, O.

General Drop Forge Co., Buffalo, N. Y.
Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.
Park Drop Forge Co., Cleveland, O.

Phosphor Bronze Smelting Co., Ltd., 2300 Washington Ave., Philadelphia.

Wyman & Gordon, Worcester, Mass.

Forgings, Marine, Machine.**Railroad and Shaft—**

Chester B. Albee Iron Works Co., Allegheny, Pa.

Barnett Drop Forging Co., Easthampton, Mass.

Belden Machine Co., New Haven, Ct.
Bethlehem Steel Co., Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.
Braeburn Steel Co., Braeburn, Pa.

Cambria Forge Co., Johnstown, Pa.
Canton Drop Forging & Mfg. Co., Can-

ton, O.
Cape Ann Tool Co., Pigeon Cove, Mass.

Carnegie Steel Co., Pittsburgh, Pa.
Chicago Drop Forge & Foundry Co., Ken-

sington, Ill.
E. D. Clapp Mfg. Co., Auburn, N. Y.

Cleveland City Forge & Iron Co., Cleveland, O.

Cleveland Drop Forging Co., Cleveland, O.
Cleveland Punch & Shear Works Co.,

Cleveland, O.
Columbus Forge & Iron Co., Columbus, O.

Detroit Forging Co., Detroit, Mich.
Erie Forge Co., Erie, Pa.

Fort Pitt Forge Co., Pittsburgh, Pa.
General Drop Forge Co., Buffalo, N. Y.

Hay-Budden Mfg. Co., Brooklyn, N. Y.
Heppenstall Forge & Knife Co., Pitts-

burgh, Pa.
Indianapolis Drop Forging Co., Indian-

apolis, Ind.
Janney, Steinmetz & Co., Philadelphia.

Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.

Thomas Laughlin Co., Portland, Me.
Otis Steel Co., Ltd., Cleveland, O.

Page-Storms Drop Forge Co., Chicopee, Mass.

Park Drop Forge Co., Cleveland, O.
Portsmouth Forge, Portsmouth, N. H.

Thomas Prosser & Son, 26 Platt St., N.Y.
Republic Iron & Steel Co., Pittsburgh, Pa.

Richmond Forgings Corporation, Richmond, Va.

Wm. B. Scalf & Sons Co., Pittsburgh.

Strieby & Foote Co., Newark, N. J.
Sundberg, Kropp & Co., 1121-1131 W. 21st

St., Chicago, Ill.
Tindal-Morris Co., Eddystone, Pa.

Titusville Forge Co., Titusville, Pa.
Transue & Williams Co., Alliance, O.

Vulcan Iron Works, 28 No. Irving Ave., Chicago, Ill.

Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

- Wilcox, Crittenden & Co., Inc., Middletown, Ct.
J. H. Williams & Co., Brooklyn, N. Y.
 Wyman & Gordon, Worcester, Mass.
Forgings, Steel—
 Chester B. Albrece Iron Works Co., Allegheny, Pa.
 American Bridge Co. of New York, 42 Broadway, New York.
 American Spiral Pipe Works, 1173-1201 Paulina St., Chicago, Ill.
 Barnett Drop Forging Co., Easthampton, Mass.
 Belden Machine Co., New Haven, Ct.
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Billings & Spencer Co., Hartford, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Braeburn Steel Co., Braeburn, Pa.
 Cambria Forge Co., Johnstown, Pa.
 Canton Drop Forging & Mfg. Co., Canton, O.
 Cape Ann Tool Co., Pigeon Cove, Mass.
 Carnegie Steel Co., Pittsburgh, Pa.
 Chicago Drop Forge & Foundry Co., Kensington, Ill.
 Chrome Steel Works, Chrome, N. J.
 E. D. Clapp Mfg. Co., Auburn, N. Y.
 Cleveland City Forge & Iron Co., Cleveland, O.
 Cleveland Drop Forging Co., Cleveland, O.
 Cleveland Punch & Shear Works Co., Cleveland, O.
 Colonial Steel Co., Pittsburgh, Pa.
 Columbus Forge & Iron Co., Columbus, O.
 Consolidated Mfg. Co., Toledo, O.
 Detroit Forging Co., Detroit, Mich.
 Richard Eccles Co., Auburn, N. Y.
 Erie Forge Co., Erie, Pa.
 Farist Steel Co., Bridgeport, Ct.
 Fort Pitt Forge Co., Pittsburgh, Pa.
 General Drop Forge Co., Buffalo, N. Y.
 Grabler Mfg. Co., Cleveland, O.
 Hay-Budden Mfg. Co., Brooklyn, N. Y.
 Heppenstall Forge & Knife Co., Pittsburgh, Pa.
 Howard Iron & Steel Co., Bellefonte, Pa.
 John Illingsworth Steel Co., Frankford, Philadelphia, Pa.
 Indianapolis Drop Forging Co., Indianapolis, Ind.
 Janney, Steinmetz & Co., Philadelphia.
 Keystone Drop Forge Works, Chester, Pa.
 Kilburn & Bishop Co., New Haven, Ct.
 McDougall & Potter Co., 606-612 W. 55th St., New York.
 Milton Mfg. Co., Milton, Pa.
 New Castle Forge & Bolt Co., New Castle, Pa.
 O. K. Tool Holder Co., Shelton, Ct.
 Otis Steel Co., Ltd., Cleveland, O.
 Page-Storms Drop Forge Co., Chicopee, Mass.
 Park Drop Forge Co., Cleveland, O.
 Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Portsmouth Forge, Portsmouth, N. H.
 Thomas Prosser & Son, 26 Platt St., N.Y.
 Richmond Forgings Corporation, Richmond, Va.
 Wm. B. Seale & Sons Co., Pittsburgh.
 M. Seward & Son Co., New Haven, Ct.
 Strieby & Foote Co., Newark, N. J.
 Sundberg, Krupp & Co., 1121-1131 W. 21st St., Chicago, Ill.
 Tindel-Morris Co., Eddystone, Pa.
 Titusville Forge Co., Titusville, Pa.
 Transue & Williams Co., Alliance, O.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.
 Western Malleable Steel Co., Detroit, Mich.
 J. H. Williams & Co., Brooklyn, N. Y.
 A. P. Wittenan & Co., 233-237 Cherry St., Philadelphia, Pa.
 Wyman & Gordon, Worcester, Mass.
MERCHANTS.
 Denman & Davis, 89-91 Lafayette St., New York.
 Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
 C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
 Homer F. Livermore, Boston, Mass.
 Patriarche & Bell, 215 Pearl St., N. Y.
 F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
 Pilling & Crane, Girard Bldg., Philadelphia, Pa.
 Wheelock, Lovejoy & Co., 23 Cliff St., New York.
Forgings, Steel Bar—
 Cleveland Drop Forging Co., Cleveland, O.
 Thomas Prosser & Son, 26 Platt St., N.Y.
Forgings, Steel, Special—
 Barnett Drop Forging Co., Easthampton, Mass.
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Billings & Spencer Co., Hartford, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Cambria Forge Co., Johnstown, Pa.
 Canton Drop Forging & Mfg. Co., Canton, O.
 Cape Ann Tool Co., Pigeon Cove, Mass.
 Carnegie Steel Co., Pittsburgh, Pa.
 Chicago Drop Forge & Foundry Co., Kensington, Ill.
 E. D. Clapp Mfg. Co., Auburn, N. Y.
 Cleveland Drop Forging Co., Cleveland, O.
 Columbus Forge & Iron Co., Columbus, O.
 Consolidated Mfg. Co., Toledo, O.
 Detroit Forging Co., Detroit, Mich.
 Richard Eccles Co., Auburn, N. Y.
 Erie Forge Co., Erie, Pa.
 Farist Steel Co., Bridgeport, Ct.
 Fawcett Machine Co., Pittsburgh, Pa.
 General Drop Forge Co., Buffalo, N. Y.
 Hay-Budden Mfg. Co., Brooklyn, N. Y.
 Heppenstall Forge & Knife Co., Pittsburgh, Pa.
 Howard Iron & Tool Co., Bellefonte, Pa.
 Indianapolis Drop Forging Co., Indianapolis, Ind.
 Keystone Drop Forge Works, Chester, Pa.
 Kilburn & Bishop Co., New Haven, Ct.
 Thomas Laughlin Co., Portland, Me.
 New Castle Forge & Bolt Co., New Castle, Pa.
 Otis Steel Co., Ltd., Cleveland, O.
 Park Drop Forge Co., Cleveland, O.
 Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
 Portsmouth Forge, Portsmouth, N. H.
 Thomas Prosser & Son, 26 Platt St., N.Y.
 Revere Drop Forge Co., Revere, Mass.
 Richmond Forgings Corporation, Richmond, Va.
 Strieby & Foote Co., Newark, N. J.
 Transue & Williams Co., Alliance, O.
 Wm. B. Walter & Co., Marquette Bldg., Chicago, Ill.

- A. P. Witteman & Co., 233-237 Cherry St., Philadelphia, Pa.
 Wyman & Gordon, Worcester, Mass.
Forgings, Thrust Collar—
 Erie Forge Co., Erie, Pa.
Forgings, Well Bit—
 Keystone Drop Forge Works, Chester, Pa.
Forgings, Wrought Iron—
 Portsmouth Forge, Portsmouth, N. H.
Fork and Spade Handles—
 (See Handles, Fork, Spade, &c.)
Fork Brackets—
 (See Brackets, Fork.)
Forks, Silver Plated—
 (See Spoons and Forks, Silver Plated.)
Forks, Baling Press—
 American Fork & Hoe Co., Cleveland, O.
 John H. Graham & Co., 113 Chambers St., New York.
Forks, Barley or Header—
 American Fork & Hoe Co., Cleveland, O.
 John H. Graham & Co., 113 Chambers St., New York.
Forks, Coke and Coal—
 American Fork & Hoe Co., Cleveland, O.
 John H. Graham & Co., 113 Chambers St., New York.
 Osborn Mfg. Co., Cleveland, O.
 Steel Basket Co., Cedar Rapids, Ia.
Forks, Cook—
 (See Forks, Kitchen.)
Forks, Cotton Seed—
 American Fork & Hoe Co., Cleveland, O.
Forks, Fish—
 American Fork & Hoe Co., Cleveland, O.
Forks, Fodder—
 American Fork & Hoe Co., Cleveland, O.
Forks, Hay, Horse—
 (See Haying Tools.)
Forks, Hay, Manure, Spading, &c.—
 American Fork & Hoe Co., Cleveland, O.
 John H. Graham & Co., 113 Chambers St., New York.
Forks, Hay Tedder—
 Wm. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Forks, Hotel—
 (See Forks, Kitchen.)
Forks, Ice—
 (See Ice Harvesting Tools.)
Forks, Kitchen—
 American Cutlery Co., Chicago, Ill.
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
 Landers, Frary & Clark, New Britain, Ct.
 Wire Goods Co., Worcester, Mass.
 (See also Kitchen Articles, Wire.)
Forks, Ore—
 American Fork & Hoe Co., Cleveland, O.
 John H. Graham & Co., 113 Chambers St., New York.
Forks, Rail—
 Hubbard & Co., Pittsburgh, Pa.
Forks, Sluice—
 American Fork & Hoe Co., Cleveland, O.
 John H. Graham & Co., 113 Chambers St., New York.
Forks, Spoons, &c., Silver and Silver Plated—
 (See Spoons, Forks, &c. Silver and Silver Plated.)
Forks, Stone or Ballast—
 American Fork & Hoe Co., Cleveland, O.
- Forks, Strawberry or Garden—**
 Wrightsville Hardware Co., Wrightsville, Pa.
Forks, Tanners—
 American Fork & Hoe Co., Cleveland, O.
Forks, Vegetable—
 Goodell Co., Antrim, N. H.
Forks, Wood—
 American Fork & Hoe Co., Cleveland, O.
Forksides, Bicycle—
 (See Bicycle Parts.)
Forming and Bending Machines—
 Adriance Machine Works, Brooklyn, N. Y.
 Ajax Mfg. Co., Cleveland, O.
 Badger State Machine Co., Janesville, Wis.
 Baird Machine Co., Oakville, Ct.
 Bertsch & Co., Cambridge City, Ind.
 Blake & Johnson Co., Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Consolidated Press & Tool Co., Hastings, Mich.
 Ferracute Machine Co., Bridgeton, N. J.
 Hilles & Jones Co., Wilmington, Del.
 Long & Allstatter Co., Hamilton, O.
 National Machinery Co., Tiffin, O.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 George A. Ohl & Co., Newark, N. J.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 Wallace Supply Co., 19 So. Jefferson St., Chicago, Ill.
 Watson-Stillman Co., 26 Cortlandt St., New York.
 Williams, White & Co., Moline, Ill.
- MERCHANTS.**
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Marshall & Huschart Machinery Co., 62 S. Canal St., Chicago, Ill.
 Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., 69 No. Halsted St., Chicago, Ill.
 A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 C. C. Wormer Machinery Co., Detroit, Mich.
- Forming and Blanking Sheet Metal—**
 (See Stamping Sheet Metal.)
Forming Machines, Automatic—
 Automatic Machine Co., Bridgeport, Ct.
 Baird Machine Co., Oakville, Ct.
 Blake & Johnson Co., Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Consolidated Press & Tool Co., Hastings, Mich.
 Ferracute Machine Co., Bridgeton, N. J.
 Franklin Mfg. Co., New Haven, Ct.
 Chas. Leffler & Co., Brooklyn, N. Y.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Forming Machines, Barrel Hoop—
 F. B. Shuster Co., New Haven, Ct.
Forming Machines, Sheet Metal—
 Adriance Machine Works, Brooklyn, N. Y.

Badger State Machine Co., Janesville, Wis.

Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.

E. J. Manville Mach. Co., Waterbury, Ct.

Niagara Machine & Tool Works, Buffalo, N. Y.

F. B. Shuster Co., New Haven, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Forming Machines. Wire—

Adriance Machine Works, Brooklyn, N. Y.

Automatic Machine Co., Bridgeport, Ct.

Badger State Machine Co., Janesville, Wis.

Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Hofer Mfg. Co., Freeport, Ill.

Chas. Lemler & Co., Brooklyn, N. Y.

E. J. Manville Mach. Co., Waterbury, Ct.

A. H. Nilson Machine Co., Bridgeport, Ct.

F. B. Shuster Co., New Haven, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Forms, Dress and Coat—

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Foundation and Sewer Gratings—

(See Gratings, Foundation, Sewer, &c.)

Foundation Bolts—

(See Bolts, Foundation.)

Foundation Rods—

(See Rods, Tie.)

Foundry Cars, Facings, &c.—

(See Cars, Facings, &c.)

Foundry Hardware Specialties. Brass Flask—

Louis Sacks, Newark, N. J.

Foundry Machines, Steel—

Whiting Foundry Equipment Co., Harvey, Ill.

Foundry Plants—

Browning Engineering Co., Cleveland, O.

Byram & Co., Inc., Detroit, Mich.

Interstate Engineering Co., Bedford, O.

Northern Engineering Works, Detroit, Mich.

J. W. Paxson Co., Philadelphia, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Whiting Foundry Equipment Co., Harvey, Ill.

Ernst Wiener Co., Broad and Beaver Sts., New York.

Foundry Riddles—

(See Riddles and Sieves.)

Foundry Supplies—

Atlas Car & Mfg. Co., Cleveland, O.

Byram & Co., Inc., Detroit, Mich.

Galton Mfg. Co., Cleveland, O.

Gem Mfg. Co., Pittsburgh, Pa.

J. Gilmour, Bennett Bldg., New York.

Goldschmidt Thermit Co., 41 Wall St., New York.

Ingersoll-Rand Co., 11 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

Oliver Machinery Co., Grand Rapids, Mich.

Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Smooth-On Mfg. Co., Jersey City, N. J.

Springfield Facing Co., Springfield, Mass.

Western Foundry Supply Co., Cliff and John Sts., New York.

Whiting Foundry Equipment Co., Harvey, Ill.

Ernst Wiener Co., Broad and Beaver Sts., New York.

Fountains, Drinking, Stock—

Glen Mfg. Co., Ellwood City, Pa.

Humphrey Machine Co., Keene, N. H.

Novelty Iron Works, Sterling, Ill.

Stewart Iron Works Co., Cincinnati, O.

Fountains, Park, Lawn, &c.—

Glen Mfg. Co., Ellwood City, Pa.

Stewart Iron Works Co., Cincinnati, O.

Foundriner Wire—

W. S. Tyler Co., Cleveland, O.

Frame Setters—

(See Setters, Frame or Angle.)

Frames, Automobile—

Bethlehem Steel Co., So. Bethlehem, Pa.

John R. Keim Mills, Inc., Buffalo, N. Y.

Northern Engineering Works, Detroit, Mich.

Thomas Prosser & Son, 26 Platt St., N. Y.

Frames, Bag and Suit Case—

R. C. Jenkinson & Co., Newark, N. J.

Frames, Binder—

Jones & Laughlins Steel Co., Pittsburgh

Frames, Bracket Saw—

Millers Falls Co., 28 Warren St., N. Y.

Frames, Cabinet and Turning Saw—

Henry Diston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Frames, Card, Drawer—

Eagle Lock Co., Terryville, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Frames, Engine—

American Steel Foundries, 42 Broadway, New York.

Frames, Folding Canopy—

Evan L. Reed Mfg. Co., Sterling, Ill.

Frames, Grindstone—

W. & B. Douglas, Middletown, Ct.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring & Varick Sts., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Oliver Machinery Co., Grand Rapids, Mich.

Frames, Hack Saw—

(See Saws, Hack, Blades and Frames.)

Frames, Lamp Shade—

Andrews Wire & Iron Works, Rockford, Ill.

- Frames, Mirror and Photograph-Metal-**
Andrews Wire & Iron Works, Rockford, Ill.
- Frames, Photograph, Silver and Silver Plated-**
International Silver Co., Meriden, Ct.
- Frames, Steel Car Truck-**
American Steel Foundries, 42 Broadway, New York.
- Frames, Steel, Iron or Brass-**
Standard Welding Co., Cleveland, O.
- Frames, Steel Platform Scale-**
Zimmerman Steel Co., Lone Tree, Ia.
- Frames, Turning Saw-**
Chapin-Stephens Co., Pine Meadow, Ct.
- Henry Diston & Sons, Philadelphia, Pa.**
- Frames, Window, Metal-**
(See Window Frames and Sash, Fire Proof.)
- Frames, Wire Galvanizing or Tinning-**
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Frames, Wood Saw-**
E. C. Atkins & Co., Indianapolis, Ind.
- Henry Diston & Sons, Philadelphia, Pa.**
- National Saw Co., Newark, N. J.**
- Simonds Mfg. Co., Fitchburg, Mass.**
- Freezers, Ice Cream-**
Commercial Can Co., Chicago, Ill.
- Hilbert Machine Co., Cincinnati, O.**
- North Bros. Mfg. Co., Philadelphia, Pa.**
- Simmons Hardware Co., St. Louis, Mo.**
- Sturges & Burn Mfg. Co., Chicago, Ill.**
- White Mountain Freezer Co., Nashua, N. H.**
- Freezers, Machine or Power-**
(See Freezers, Ice Cream.)
- Fret Saws-**
(See Saws, Compass.)
- Froes, Coopers-**
Hubbard & Co., Pittsburgh, Pa.
- Frogs, Railroad-**
(See Switches and Frogs, Railroad.)
- Fronts, Building, Iron-**
(See Structural Material.)
- Fronts, Building, Sheet Metal-**
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
- Eller Mfg. Co., Canton, O.**
- Fruit Bowls-**
(See Bowls, Silver Plated.)
- Fruit Can Wax-**
(See Wax, Fruit Can.)
- Fruit Dishes-**
(See Dishes, Silver Plated.)
- Fry Pans-**
(See Pans, Fry.)
- Fuel Oil Systems-**
Petroleum Iron Works Co., Sharon, Pa.
- Fuller Balls, Rubber-**
(See Balls, Fuller, Rubber.)
- Funnels, Crucible Charging-**
W. J. Clark Co., Salem, O.
- Furnace Charging Scales, Lamps-**
(See Scales, Lampe.)
- Furnace Feeders for Shaving Automatic-**
Stribling Flower & Pipe Mfg. Co., Hartford, Ct.
- Furnace Hoists or Fillers-**
Brown Hoisting Machinery Co., Cleveland.
- Furnace Shovels-**
(See Shovels and Scoops, Furnace.)
- Furnaces, Air-**
Vollkommer & Hagan, Pittsburgh, Pa.
- Furnaces and Dryers, Galvanizing-**
American Furnace & Machine Co., Pittsburgh, Pa.
- Furnaces, Annealing-**
American Furnace & Machine Co., Pittsburgh, Pa.
- American Gas Furnace Co., 23 John St., New York.**
- W. N. Best American Calorific Co., 11 Broadway, New York.**
- E. W. Bliss Co., Brooklyn, N. Y.**
- Brown & Sharpe Mfg. Co., Providence, R. I.**
- Crosby Co., Buffalo, N. Y.**
- Forster-Miller Engineering Co., Inc., Pittsburgh, Pa.**
- Kiln & Chimney Construction Co., Brooklyn, N. Y.**
- Morgan Construction Co., Worcester, Mass.**
- J. W. Faxon Co., Philadelphia, Pa.**
- J. D. Smith Foundry Supply Co., Cleveland, O.**
- Wm. Swindell & Bros., Pittsburgh, Pa.**
- Tate, Jones & Co., Inc., Pittsburgh, Pa.**
- Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.**
- Vollkommer & Hagan, Pittsburgh, Pa.**
- Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.**
- Whiting Foundry Equipment Co., Harvey, Ill.**
- Wright Wire Co., Worcester, Mass.**
- Furnaces, Annealing Lead-**
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Furnaces, Blast-**
Forster-Miller Engineering Co., Inc., Pittsburgh, Pa.
- Julian Kennedy, Pittsburgh, Pa.**
- Walter Kennedy, Pittsburgh, Pa.**
- G. W. McClure, Son & Co., Pittsburgh.**
- Arthur G. McKee, Cleveland, O.**
- Meehan Boiler & Construction Co., Lowellville, O.**
- Pennsylvania Engineering Works, New Castle, Pa.**
- Petroleum Iron Works Co., Sharon, Pa.**
- Pittsburgh Steel Construction Co., Pittsburgh, Pa.**
- Riter-Conley Mfg. Co., Pittsburgh, Pa.**
- Wm. B. Scaife & Sons Co., Pittsburgh.**
- S. R. Smythe Co., Pittsburgh, Pa.**
- Furnaces, Boiler-**
American Furnace & Machine Co., Pittsburgh, Pa.
- W. N. Best American Calorific Co., 11 Broadway, New York.**
- Kiln & Chimney Construction Co., Brooklyn, N. Y.**
- Furnaces, Brass Melting-**
American Furnace & Machine Co., Pittsburgh, Pa.
- W. N. Best American Calorific Co., 11 Broadway, New York.**
- Byram & Co., Inc., Detroit, Mich.**
- Kiln & Chimney Construction Co., Brooklyn, N. Y.**
- Monarch Engineering & Mfg. Co., Baltimore, Md.**

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

S. R. Smythe Co., Pittsburgh, Pa.

Stow Flexible Shaft Co., 26th & Callow-

hill Sts., Philadelphia, Pa.

Wm. Swindell & Bros., Pittsburgh, Pa.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Whiting Foundry Equipment Co., Har-

vey, Ill.

Furnaces, Brazing—

American Gas Furnace Co., 23 John St.,

New York.

W. N. Best American Calorific Co., 11

Broadway, New York.

Globe Machine & Stamping Co., Cleve-

land, O.

Vollkommer & Hagan, Pittsburgh, Pa.

Waterbury Farrel Foundry & Machine

Co., Waterbury, Ct.

Furnaces, Case Hardening—

American Gas Furnace Co., 23 John St.,

New York.

W. N. Best American Calorific Co., 11

Broadway, New York.

Brown & Sharpe Mfg. Co., Providence,

R. I.

Crosby Co., Buffalo, N. Y.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Chain Heating—

American Furnace & Machine Co., Pitts-

burgh, Pa.

American Gas Furnace Co., 23 John St.,

New York.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga

Falls, O.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Charcoal—

Griswold Mfg. Co., Erie, Pa.

Furnaces, Coke—

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Crucible—

American Furnace & Machine Co., Pitts-

burgh, Pa.

American Gas Furnace Co., 23 John St.,

New York.

W. N. Best American Calorific Co., 11

Broadway, New York.

Elmer & Amend, 205 3d Ave., New York.

Forster-Miller Engineering Co., Inc.,

Pittsburgh, Pa.

Kihn & Chimney Construction Co., Brook-

lyn, N. Y.

Alex. Laughlin & Co., Pittsburgh, Pa.

Monarch Engineering & Mfg. Co., Balti-

more, Md.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleve-

land, O.

S. R. Smythe Co., Pittsburgh, Pa.

Wm. Swindell & Bros., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Crude Oil or Tar

Melting—

W. N. Best American Calorific Co., 11

Broadway, New York.

Tate, Jones & Co., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Electric, for Steel

Making—

R. H. Wolff, 445 Broadway, New York.

Furnaces, Electrically

Heated—

Bristol Co., Waterbury, Ct.

Charles Engelhard, 32 Cortlandt St., N.Y.

Vollkommer & Hagan, Pittsburgh, Pa.

R. H. Wolff, 445 Broadway, New York.

Furnaces, Enameling—

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Farmers' and

Kitchen—

Stuart & Peterson Co., Burlington, N. J.

Furnaces, Flanging—

W. N. Best American Calorific Co., 11

Broadway, New York.

Furnaces, Flue Welding—

W. N. Best American Calorific Co., 11

Broadway, New York.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Forging—

Acme Machinery Co., Cleveland, O.

American Furnace & Machine Co., Pitts-

burgh, Pa.

W. N. Best American Calorific Co., 11

Broadway, New York.

Billings & Spencer Co., Hartford, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

A. P. Witteman & Co., 233-237 Cherry St.,

Philadelphia, Pa.

Furnaces, Fuel Oil or Tar

Melting—

American Gas Furnace Co., 23 John St.,

New York.

W. N. Best American Calorific Co., 11

Broadway, New York.

Monarch Engineering & Mfg. Co., Balti-

more, Md.

Stow Flexible Shaft Co., 26th & Callow-

hill Sts., Philadelphia, Pa.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Fuel Saving—

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Gas Annealing—

American Gas Furnace Co., 23 John St.,

New York.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Gas Blast—

American Gas Furnace Co., 23 John St.,

New York.

Chicago Flexible Shaft Co., La Salle Ave.

and Ontario St., Chicago, Ill.

Monarch Engineering & Mfg. Co., Balti-

more, Md.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Gas, Brazing,

Case Hardening, Chain

Heating—

American Gas Furnace Co., 23 John St.,

New York.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Gas, Crucible—

American Gas Furnace Co., 23 John St.,

New York.

Monarch Engineering & Mfg. Co., Balti-

more, Md.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Gas Soldering—
Schneider & Trenkamp Co., Div. American Stove Co., Cleveland, O.

Furnaces, Glass—
American Furnace & Machine Co., Pittsburgh, Pa.

Kiln & Chimney Construction Co., Brooklyn, N. Y.

S. R. Smythe Co., Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Heating—
Acme Machinery Co., Cleveland, O.
American Furnace & Machine Co., Pittsburgh, Pa.

W. N. Best American Calorific Co., 11 Broadway, New York.

Billings & Spencer Co., Hartford, Ct.

E. W. Bliss Co., Brooklyn, N. Y.
Porter-Miller Engineering Co., Inc., Pittsburgh, Pa.

Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.

Alex. Laughlin & Co., Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh,

Arthur G. McKee, Cleveland, O.
S. R. Smythe Co., Pittsburgh, Pa.

Stuart & Peterson Co., Burlington, N. J.
Wm. Swindell & Bros., Pittsburgh, Pa.

Tate, Jones & Co., Inc., Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Furnaces, Malleable—
American Furnace & Machine Co., Pittsburgh, Pa.

W. N. Best American Calorific Co., 11 Broadway, New York.

S. R. Smythe Co., Pittsburgh, Pa.
Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.
Whiting Foundry Equipment Co., Harvey,

Ill.

Furnaces, Muffle—
American Furnace & Machine Co., Pittsburgh, Pa.

American Gas Furnace Co., 23 John St., N. Y.

W. N. Best American Calorific Co., 11 Broadway, New York.

Elmer & Amend, 205 3d Ave., New York.

Porter-Miller Engineering Co., Inc., Pittsburgh, Pa.

Kiln & Chimney Construction Co., Brooklyn, N. Y.

Morgan Construction Co., Worcester, Mass.

S. R. Smythe Co., Pittsburgh, Pa.
Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Natural Gas—
American Gas Furnace Co., 23 John St., New York.

Tate, Jones & Co., Inc., Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Oil or Tar Melting—

W. N. Best American Calorific Co., 11 Broadway, New York.

Monarch Engineering & Mfg. Co., Baltimore, Md.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Tate, Jones & Co., Inc., Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Open Hearth—
American Furnace & Machine Co., Pittsburgh, Pa.

Porter-Miller Engineering Co., Inc., Pittsburgh, Pa.

Julian Kennedy, Pittsburgh, Pa.
Walter Kennedy, Pittsburgh, Pa.

Alex. Laughlin & Co., Pittsburgh, Pa.
G. W. McClure, Son & Co., Pittsburgh,

Arthur G. McKee, Cleveland, O.
Meehan Boiler & Construction Co., Lowell,

Mass.

J. W. Paxson Co., Philadelphia, Pa.
Pennsylvania Engineering Works, New

Castle, Pa.

Riter-Conley Mfg. Co., Pittsburgh, Pa.
S. R. Smythe Co., Pittsburgh, Pa.

Wm. Swindell & Bros., Pittsburgh, Pa.
Tate, Jones & Co., Inc., Pittsburgh, Pa.

Vollkommer & Hagan, Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.

Whiting Foundry Equipment Co., Harvey, Ill.

Furnaces, Plumbers' and Tanners'—

Barnes Tool Co., New Haven, Ct.

Clark Novelty Co., Rochester, N. Y.
Niagara Machine & Tool Works, Buffalo,

N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Furnaces, Portable, Lead, Gravel, Tar, &c.—

F. H. Evans, Brooklyn, N. Y.

Stuart & Peterson Co., Burlington, N. J.

Furnaces, Producer Gas Burning—

Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Puddling—
American Furnace & Machine Co., Pittsburgh, Pa.

Alex. Laughlin & Co., Pittsburgh, Pa.
S. R. Smythe Co., Pittsburgh, Pa.

Wm. Swindell & Bros., Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Regenerative—
Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Reheating—.....
Morgan Construction Co., Worcester, Mass.

Furnaces, Rivet—
American Gas Furnace Co., 23 John St., New York.

Monarch Engineering & Mfg. Co., Baltimore, Md.

Tate, Jones & Co., Inc., Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Rivet, Oil or Gas—

W. N. Best American Calorific Co., 11 Broadway, New York.

Monarch Engineering & Mfg. Co., Baltimore, Md.

Tate, Jones & Co., Inc., Pittsburgh, Pa.

Furnaces, Rivet, Tar—
W. N. Best American Calorific Co., 11 Broadway, New York.

Furnaces, Siemens—
Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Smelting—
Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Tempering—
W. N. Best American Calorific Co., 11 Broadway, New York.

Tate, Jones & Co., Inc., Pittsburgh, Pa.
Vollkommer & Hagan, Pittsburgh, Pa.

A. F. Wittman & Co., 23-27 Cherry St., Philadelphia, Pa.

Furnaces, Tube Welding—

American Furnace & Machine Co., Pittsburgh, Pa.
 Forter-Miller Engineering Co., Inc., Pittsburgh, Pa.
 Alex. Laughlin & Co., Pittsburgh, Pa.
 S. R. Smythe Co., Pittsburgh, Pa.
 Tate, Jones & Co., Inc., Pittsburgh, Pa.
 Vollkommer & Hagan, Pittsburgh, Pa.

Furnaces, Warm Air—

Hess-Snyder Co., Massillon, O.

Furnaces, Water Jacket—

Byram & Co., Detroit, Mich.

Furnaces, Wire Brazing—

American Gas Furnace Co., 23 John St., New York.

Furnaces, Wire Galvanizing—

Morgan Construction Co., Worcester, Mass.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Furnaces, Wire Tinning—

Morgan Construction Co., Worcester, Mass.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Furniture, Drafting Room—

Keuffel & Esser Co., 127 Fulton St., N. Y.

Furniture, Metal—

Van Dorn Iron Works Co., Cleveland, O.

Fuse, Safety—

Ensign-Bickford Co., Simsbury, Ct.

Fused Quartz Ware—

Charles Engelhard, 32 Cortlandt St., N. Y.

Fuses, Aluminum—

U. S. Indestructible Gasket Co., 16 S. William St., New York.

Galvanized Ornamentals—

(See Architectural Sheet Metal Work.)

Gadders—

Ingersoll-Rand Co., 11 Broadway, New York.

Gaining Machines—

(See Wood Working Machines.)

Galley Sheets—

(See Sheets, Galley.)

Galvanized Angles, Bars, Channels, &c.—

Cleveland Galvanizing Works, Cleveland, Ohio.
 McCance Bros. Co., Inc., Pittsburgh, Pa.
 Scully Steel & Iron Co., 69 Halsted St., Chicago, Ill.

Galvanized Bolts—

(See Bolts, Galvanized.)

Galvanized Gray Iron and Malleable—

Walker Foundry Co., Erie, Pa.

Galvanized Iron, Cornice, &c.—

(See Cornice, &c., Galvanized Iron.)

Galvanized Sheets—

(See Sheets, Galvanized.)

Galvanized Ware, Heavy, to Order—

Johnson Mfg. Co., Urbana, O.

Galvanized Wire Guy Strand—

Broderick & Bascom Rope Co., St. Louis, Mo.

Galvanized Wire Rope—

Broderick & Bascom Rope Co., St. Louis, Mo.

Galvanized Wire Strand—

(See Wires, Electrical.)

Galvanizers' Flux—

Sandoval Zinc Co., 122 No. Peoria St., Chicago, Ill.

Galvanizing—

Abendroth & Root Mfg. Co., Newburgh, N. Y.

Alaska Freezer Co., Winchendon, Mass.

American Iron & Steel Mfg. Co., Lebanon, Pa.

Avery Stamping Co., Cleveland, O.

Bossert Electric Construction Co., Utica, N. Y.

Carnegie Steel Co., Pittsburgh, Pa.

Cleveland Galvanizing Works, Cleveland, Ohio.

Empire Foundry Co., New Brunswick, N. J.

Empire Iron & Steel Co., Niles, O.

Gem Mfg. Co., Boston, Mass.

Grabler Mfg. Co., Cleveland, O.

Gray Iron Foundry Co., Reading, Pa.

Gueder & Paeschke Mfg. Co., Milwaukee, Wis.

M. Lanz & Sons, Pittsburgh, Pa.

Thomas Laughlin Co., Portland, Me.

McCance Bros. Co., Inc., Pittsburgh, Pa.

National Galvanizing Co., 749-759 Carroll Ave., Chicago, Ill.

Niagara Wire Cloth Co., Buffalo, N. Y.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

United States Electro-Galvanizing Co., Brooklyn, N. Y.

Walker Foundry Co., Erie, Pa.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Wright Wire Co., Worcester, Mass.

Galvanizing, Automatic Handling Device for—

U. S. Electro Galvanizing Co., Brooklyn, N. Y.

Galvanizing Machinery, Wire—

Morgan Construction Co., Worcester, Mass.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Galvanizing Plants—

Morgan Construction Co., Worcester, Mass.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

United Engineering & Foundry Co., Pittsburgh, Pa.

U. S. Electro-Galvanizing Co., Brooklyn, N. Y.

Galvanizing Plants, Electro—

U. S. Electro-Galvanizing Co., Brooklyn, N. Y.

Galvanizing, Process of—

U. S. Electro-Galvanizing Co., Brooklyn, N. Y.

Galvanometers—

Western Electrical Instrument Co., Newark, N. J.

Game Traps—

(See Traps.)

Gang Saws—

(See Saws, Gang.)

Ganister—

American Refractories Co., Joliet, Ill.

J. W. Faxon Co., Philadelphia, Pa.

Gargues—
Portable Construction Co., 16 No. William
St., New York.

Garbage Cans—
(See Cans.)

Garden Hoes— Garden, Field, Mortar, &c.)

Garden Implements—
Bateman Mfg. Co., Glenloch, N. J.

**Garden Lines, Rakes,
Shears, &c.—**
(See Lines, Rakes, Shears, &c.)

Gargoyles, Garlands, &c.—
(See Architectural Sheet Metal Work.)

**Garment Display Stands,
Hooks and Eyes, Stand
Bases—**
(See Stands, Hooks and Eyes, Bases.)

Garnet Paper—
(See Papers, Sand, Garnet, &c.)

Gas and Electric Fixtures—
Bridgeport Brass Co., 253 Broadway, N. Y.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

**Gas - Compositometer (CO₂),
Recording—**

Uehling Instrument Co., Passaic, N. J.

Gas Cookers—
(See Plates, Hot Gas.)

Gas Engine Parts—
National Cycle Mfg. Co., Bay City, Mich.

Gas Lighting Supplies—
General Gas Light Co., Kalamazoo, Mich.

Gas Machines—
American Gas Machine Co., Albert Lea,
Minn.

Gas Pillars—
(See Pillars.)

Gas Plant Machinery—
Morgan Construction Co., Worcester,
Mass.

Ritter-Couley Mfg. Co., Pittsburgh, Pa.

Riverside Engine Co., Oil City, Pa.

**R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.**

Gas Portables—
Goodwin & Kintz Co., Winsted, Ct.

**Gas Purification Systems,
Blow Furnace—**

S. R. Smythe Co., Pittsburgh, Pa.

Gasnet Tubing—
Jenkins Bros., 11 John St., New York.

**Gaskets, Alloy, Plain and
Corrugated—**

New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

**Gaskets and Rings, Rub-
ber—**

L. J. Barwood Co., Inc., Boston, Mass.

H. O. Canfield Co., Bridgeport, Ct.

Jenkins Bros., 11 John St., New York.

New York Washer & Gasket Co., Brook-
lyn, N. Y.

Gaskets, Asbestos—
Goodwin & Kintz Co., Winsted, Ct.

Otto Konigslow Mfg. Co., Cleveland, O.

**Gaskets, Coated, Rustless
Steel—**

N. Y. Washer & Gasket Co., Brooklyn, N. Y.

Gaskets, Copper—
Otto Konigslow Mfg. Co., Cleveland, O.

N. Y. Washer & Gasket Co., Brooklyn, N. Y.

Gaskets, Copper, Seamless—
Otto Konigslow Mfg. Co., Cleveland, O.

New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

Gaskets, Corrugated Brass—
New York Washer & Gasket Co., Brook-
lyn, N. Y.

**Gaskets, Corrugated Cop-
per and Bronze—**

American Spiral Pipe Works, 1173-1201 S.
Paulina St., Chicago, Ill.

Goodwin & Kintz Co., Winsted, Ct.

New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Power Specialty Co., 111 Broadway, New
York.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

**Gaskets, Corrugated Nick-
eled—**

New York Washer & Gasket Co., Brook-
lyn, N. Y.

**Gaskets, Corrugated Pea-
cock Steel—**

New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

Gaskets, Corrugated Steel—
New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

Gaskets, Fiber, Wood, &c.—
L. J. Barwood Co., Inc., Boston, Mass.

New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

Gaskets, Hydraulic—
U. S. Indestructible Gasket Co., 16 So.
William St., New York.

**Gaskets, Indestructible
Metal—**

New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

Gaskets, Iron, Cement—
Smooth-On Mfg. Co., Jersey City, N. J.

Gaskets, Lead and Alloys—
Cleveland Galvanizing Works, Cleveland.

New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

Gaskets, Lead Coated—
New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 So.
William St., New York.

Gaskets, Leather—
L. J. Barwood Co., Inc., Boston, Mass.

Grayton & Knight Mfg. Co., Worcester,
Mass.

Gaskets, Paper and Felt—
L. J. Barwood Co., Inc., Boston, Mass.

New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

Gaskets, Phosphor-Bronze—
N. Y. Washer & Gasket Co., Brooklyn,
N. Y.

U. S. Indestructible Gasket Co., 16 So.
William St., New York.

Gaskets, Rustless Steel—
U. S. Indestructible Gasket Co., 16 So.
William St., New York.

Gaskets, Silver—
New York Washer & Gasket Co., Brook-
lyn, N. Y.

U. S. Indestructible Gasket Co., 16 S.
William St., New York.

Gaskets, Swedish Steel—
U. S. Indestructible Gasket Co., 16 So.
William St., New York.

**Gaskets, to Order, for Spe-
cial Conditions—**

U. S. Indestructible Gasket Co., 16 So.
William St., New York.

Gaskets, Wire—
U. S. Indestructible Gasket Co., 16 So.
William St., New York.

**Gasoline Engines, Gener-
ators, &c.—**

(See Engines, Generators, &c.)
**Gasoline Gas and Vapor
Lamps—**

(See Lamps.)
Gate Hangers, Hinges.

Hooks, &c.—
(See Hangers, Hinges, Hooks, &c.)

Gate Rollers—
(See Hangers, Gate.)

Gates, Automatic Elevator—
Webster & Perks Tool Co., Springfield, O.

Gates, Automatic Hatch—
Salem Elevator Works, Salem, Mass.

Warsaw Elevator Co., Warsaw, N. Y.

Gates, Blast—
American Blower Co., Detroit, Mich.

Bayley Mfg. Co., Milwaukee, Wis.

Boston Blower Co., Hyde Park, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Connorsville Blower Co., Connorsville, Ind.

Eynon-Evans Mfg. Co., 1507 Clearfield St.,
Philadelphia, Pa.

Miner & Peck Mfg. Co., New Haven, Ct.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Strirling Blower & Pipe Mfg. Co., Hart-
ford, Ct.

Gates, Extension—
Buffalo Wire Works Co., Inc., Buffalo,
N. Y.

Dufur & Co., Baltimore, Md.

Estey Wire Works Co., 59 Fulton St.,
New York.

Lindlow-Saylor Wire Co., St. Louis, Mo.

Wright Wire Co., Worcester, Mass.

Gates, Fence—
(See Fencing, Gates, &c.)

Gates, Hose—
R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.

Gates, Oil and Molasses—
S. Cheney & Son, Manlius, N. Y.

Charles Parker Co., Meriden, Ct.

Taylor & Boggie Foundry Co., Cleveland,
O.

Gates, Safety Elevator—
Energy Elevator Co., 214 New St., Phila-
delphia, Pa.

Salem Elevator Works, Salem, Mass.

Gates, Walk and Driveway—
(See Fencing, Gates, &c.)

Gates, Water—
R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.

**Gauge Boards, Marble and
Wood—**

American Steam Gauge & Valve Mfg.
Co., Boston, Mass.

Crosby Steam Gauge & Valve Co., Boston,
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Gauge Cocks, Saws—
(See Cocks, Saws.)

**Gauge Testers, Dead
Weight—**

American Steam Gauge & Valve Mfg. Co.,
Boston, Mass.

Gauges, Air Brake—
American Steam Gauge & Valve Mfg.
Co., Boston, Mass.

Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.

Crosby Steam Gauge & Valve Co., Boston,
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Gauges, Altitude—
American Steam Gauge & Valve Mfg.
Co., Boston, Mass.

Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.

Ashton Valve Co., Boston, Mass.

Crosby Steam Gauge & Valve Co., Boston,
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Gauges, Ammonia—
American Steam Gauge & Valve Mfg.
Co., Boston, Mass.

Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.

Ashton Valve Co., Boston, Mass.

Crosby Steam Gauge & Valve Co., Boston,
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

**Gauges and Squares, Com-
bined—**

Brown & Sharpe Mfg. Co., Providence,
R. I.

H. H. Mayhew Co., Shelburne Falls,
Mass.

Gauges, Automobile—
American Steam Gauge & Valve Mfg.
Co., Boston, Mass.

Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.

Ohio Brass Co., Mansfield, O.

Gauges, Bar Iron Limit—
Pratt & Whitney Co., Hartford, Ct.

Wells Bros. Co., Greenfield, Mass.

Gauges, Bit—
Millers Falls Co., 28 Warren St., N. Y.

Stanley Rule & Level Co., New Britain,
Ct.

James Swan Co., Seymour, Ct.

Gauges, Blast—
Byram & Co., Inc., Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Uehling Instrument Co., Passaic, N. J.

Gauges, Boiler Plate—
Brown & Sharpe Mfg. Co., Providence,
R. I.

Gauges, Bolt and Pipe—
Pratt & Whitney Co., Hartford, Ct.

Wells Bros. Co., Greenfield, Mass.

Gauges, Butt and Rabbit—
Goodell-Pratt Co., Greenfield, Mass.

Stanley Rule & Level Co., New Brit-
ain, Ct.

Gauges, Button—
L. S. Starrett Co., Athol, Mass.

Gauges, Caliper—
Brown & Sharpe Mfg. Co., Providence,
R. I.

- Morse Twist Drill & Machine Co., New Bedford, Mass.
 Schuchardt & Schutte, 136 Liberty St., New York.
 J. T. Slocomb Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
 J. H. Williams & Co., Brooklyn, N. Y.
- Gauges, Center—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Henry Disston & Sons, Philadelphia, Pa.
 Pratt & Whitney Co., Hartford, Ct.
 L. S. Starrett Co., Athol, Mass.
- Gauges, Chisel—**
 Stanley Rule & Level Co., New Britain, Ct.
- Gauges, Circumference—**
 Pratt & Whitney Co., Hartford, Ct.
 L. S. Starrett Co., Athol, Mass.
- Gauges, Clapboard—**
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Stanley Rule & Level Co., New Britain, Ct.
- Gauges, Combination—**
 Billings & Spencer Co., Hartford, Ct.
 Chapin-Stephens Co., Pine Meadow, Ct.
 Henry Disston & Sons, Philadelphia, Pa.
- Gauges, Cutting—**
 Chapin-Stephens Co., Pine Meadow, Ct.
- Gauges, Decimal Sheet Metal—**
 Pratt & Whitney Co., Hartford, Ct.
- Gauges, Depth—**
 Billings & Spencer Co., Hartford, Ct.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Schuchardt & Schutte, 136 Liberty St., New York.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 J. T. Slocomb Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
- Gauges, Draft—**
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
- Gauges, Drawing Knife—**
 James Swan Co., Seymour, Ct.
- Gauges, Drill—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Cleveland Twist Drill Co., Cleveland, O.
 Morse Twist Drill & Machine Co., New Bedford, Mass.
 Standard Tool Co., Cleveland, O.
 L. S. Starrett Co., Athol, Mass.
- Gauges, Fine Rack and Pinion—**
 American Watch Tool Co., Waltham, Mass.
- Gauges, Gear Tooth—**
 Boston Gear Works, Norfolk Downs, Mass.
 Brown & Sharpe Mfg. Co., Providence, R. I.
- Gauges, Height—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
- Gauges, Hub—**
 L. S. Starrett Co., Athol, Mass.
- Gauges, Hydraulic—**
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
- American Well Works, Aurora, Ill.**
 Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
- Ashton Valve Co., Boston, Mass.
 Bristol Co., Waterbury, Ct.
 Crosby Steam Gauge & Valve Co., Boston.
 Lunkenheimer Co., Cincinnati, O.
 Watson-Stillman Co., 28 Cortlandt St., New York.
- Gauges, Inspectors'—**
 J. T. Slocomb Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
- Gauges, Jobbers'—**
 (See Gauges, Drill.)
- Gauges, Jointer—**
 Goodell-Pratt Co., Greenfield, Mass.
 Millers Falls Co., 28 Warren St., N. Y.
- Gauges, Limit—**
 Cleveland Twist Drill Co., Cleveland, O.
- Gauges, Lumber—**
 Luffin Rule Co., Saginaw, Mich.
- Gauges, Marking, &c—**
 Billings & Spencer Co., Hartford, Ct.
 Chapin-Stephens Co., Pine Meadow, Ct.
 Henry Disston & Sons, Philadelphia, Pa.
 Goodell-Pratt Co., Greenfield, Mass.
 Otis A. Smith, Rockfall, Ct.
 Stanley Rule & Level Co., New Britain, Ct.
- Gauges, Master Car Builders'—**
 Pratt & Whitney Co., Hartford, Ct.
- Gauges, Mercury—**
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Edward Brown & Son, 311 Walnut St., Philadelphia, Pa.
- Gauges, Metric—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
- Gauges, Micrometer—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
 J. T. Slocomb Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
 Wells Bros. Co., Greenfield, Mass.
- Gauges, Nail—**
 Henry Disston & Sons, Philadelphia, Pa.
- Gauges, Ordnance—**
 Crosby Steam Gauge & Valve Co., Boston.
- Gauges, Paper—**
 L. S. Starrett Co., Athol, Mass.
- Gauges, Piezometer—**
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
- Gauges, Plane—**
 Goodell-Pratt Co., Greenfield, Mass.
- Gauges, Plug and Ring—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
- Gauges, R. M. Clough, Tolland, Ct.**
 Morse Twist Drill & Machine Co., New Bedford, Mass.
 Pratt & Whitney Co., Hartford, Ct.
 Wells Bros. Co., Greenfield, Mass.
- Gauges, Pocket Caliber—**
 Billings & Spencer Co., Hartford, Ct.
 L. S. Starrett Co., Athol, Mass.
- Gauges, Pressure—**
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
- Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
 Ashton Valve Co., Boston, Mass.
 Crosby Steam Gauge & Valve Co., Boston.
 Lunkenheimer Co., Cincinnati, O.

- Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Gauges, Pressure, Differential—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Gauges, Pressure Recording—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.
 Bristol Co., Waterbury, Ct.
 Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Gauges, Prismatic Water—
 Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.
Gauges, Pyrometer, Steam—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.
 Ashton Valve Co., Boston, Mass.
 Crosby Steam Gage & Valve Co., Boston.
Gauges, Railroad Track—
 Sheffield Car Co., Three Rivers, Mich.
Gauges, Recording—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.
 Ashton Valve Co., Boston, Mass.
 Bristol Co., Waterbury, Ct.
 Crosby Steam Gage & Valve Co., Boston.
 Uehling Instrument Co., Passaic, N. J.
Gauges, Recording, Light Pressure—
 Bristol Co., Waterbury, Ct.
 Uehling Instrument Co., Passaic, N. J.
Gauges, Recording, Light Vacuum—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Bristol Co., Waterbury, Ct.
 Uehling Instrument Co., Passaic, N. J.
Gauges, Rolling Mill—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Connorsville Blower Co., Connorsville, Ind.
 Haines Gauge Co., Provident Bldg., Philadelphia, Pa.
Gauges, Rule—
 Caldwell Mfg. Co., Rochester, N. Y.
 Tower & Lyon Co., 95 Chambers St., New York.
Gauges, Saw Tooth—
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
Gauges, Scratch, Surface, &c—
 Billings & Spencer Co., Hartford, Ct.
 Goodell-Pratt Co., Greenfield, Mass.
 L. S. Starrett Co., Athol, Mass.
Gauges, Screw Pitch—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Butterfield & Co., Derby Line, Vt.
 Pratt & Whitney Co., Hartford, Ct.
 L. S. Starrett Co., Athol, Mass.
 Wells Bros. Co., Greenfield, Mass.
Gauges, Sheet Metal—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Pratt & Whitney Co., Hartford, Ct.
 L. S. Starrett Co., Athol, Mass.
Gauges, Snap—
 Billings & Spencer Co., Hartford, Ct.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Cleveland Twist Drill Co., Cleveland, O.
 Pratt & Whitney Co., Hartford, Ct.
 Wells Bros. Co., Greenfield, Mass.
Gauges, Stair—
 L. S. Starrett Co., Athol, Mass.
Gauges, Standard Test—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.
 Crosby Steam Gage & Valve Co., Boston.
Gauges, Steam and Vacuum—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 American Well Works, Aurora, Ill.
 Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.
 Ashton Valve Co., Boston, Mass.
 Bristol Co., Waterbury, Ct.
 Crosby Steam Gage & Valve Co., Boston.
 Lunkenheimer Company, Cincinnati, O.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Gauges, Surface—
 Billings & Spencer Co., Hartford, Ct.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Hoggson & Pettis Mfg. Co., New Haven, Ct.
 L. S. Starrett Co., Athol, Mass.
Gauges, Thickness—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
Gauges, Tide—
 Keuffel & Esser Co., 127 Fulton St., New York.
Gauges, Track—
 Hubbard & Co., Pittsburgh, Pa.
 Irving Mfg. & Tool Co., 157 Chambers St., New York.
Gauges, Twist Drill—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Standard Tool Co., Cleveland, O.
Gauges, Vacuum Recording—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Bristol Co., Waterbury, Ct.
 Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
 Uehling Instrument Co., Passaic, N. J.
Gauges, Water—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 American Well Works, Aurora, Ill.
 Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.
 Ashton Valve Co., Boston, Mass.
 Crosby Steam Gage & Valve Co., Boston.
 Lunkenheimer Company, Cincinnati, O.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Ohio Brass Co., Mansfield, O.
 Wm. Powell Co., Cincinnati, O.
 Walworth Mfg. Co., Boston, Mass.
Gauges, Water Chain Lever—
 Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Gauges, Water Level, Recording—
 Bristol Co., Waterbury, Ct.
 Keuffel & Esser Co., 127 Fulton St., New York.

Gauges, Wire—

E. O. Atkins & Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Henry Disston & Sons, Philadelphia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Standard Tool Co., Cleveland, O.

L. S. Starrett Co., Athol, Mass.

Wright Wire Co., Worcester, Mass.

Gear Blanks, Cutters, Planers—

(See Blanks, Cutters, Planers.)

Gear Blanks, Rawhide—

Horsburgh & Scott Co., Cleveland, O.
New Process Raw Hide Co., Syracuse,
N. Y.

Gear Blanks, Steel—

Armor Steel & Foundry Co., Matthews,
Ind.

Keystone Steel Casting Co., Chester, Pa.
Thomas Prosser & Son, 26 Platt St., N.Y.

Gear Cutting—

Blake & Johnson Co., Waterbury, Ct.

Boston Gear Works, Norfolk Downs, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Case Mfg. Co., Columbus, O.

Earle Gear & Machine Co., Stenton and
Wyoming Ave., Philadelphia, Pa.

Eberhardt Bros. Machine Co., Newark,
N. J.

Fawcuss Machine Co., Pittsburgh, Pa.

Perracute Machine Co., Bridgeton, N. J.

Footo Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Wm. Gardam & Son, Inc., 221 Fulton
St., New York.

Gleason Works, Rochester, N. Y.

Gould & Eberhardt, Newark, N. J.

Edwin Harrington, Son & Co. (Inc.),
Philadelphia, Pa.

Heindel Mfg. Co., Hanover, Pa.

Horsburgh & Scott Co., Cleveland, O.

W. B. Knight Machinery Co., St. Louis,
Mo.

New Process Raw Hide Co., Syracuse,
N. Y.

Northern Engineering Works, Detroit,
Mich.

R. D. Nuttall Co., Pittsburgh, Pa.

Poole Engineering & Machine Co., Bal-
timore, Md.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

W. A. Wilson Machine Co., Rochester,
N. Y.

Gear Cutting, Attachments

for Milling Machines—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Gear Cutting Machines—

Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.

Boston Gear Works, Norfolk Downs, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Eberhardt Bros. Machine Co., Newark,
N. J.

Garvin Machine Co., Spring and Varick
Sts., New York.

Gleason Works, Rochester, N. Y.

Gould & Eberhardt, Newark, N. J.

Edwin Harrington, Son & Co. (Inc.),
Philadelphia, Pa.

Newton Machine Tool Works, 23d & Vine
Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.

Schuchardt & Schutte, 136 Liberty St.,
New York.

Dwight Slate Machine Co., Hartford, Ct.

Sloan & Chace Mfg. Co., Ltd., Newark,
N. J.

Union Twist Drill Co., Athol, Mass.

Waltham Machine Works, Waltham, Mass.

D. E. Whiton Machine Co., New London,
Ct.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Marshall & Hinchart Machinery Co., 62-
64 So. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co.,
Cleveland, O.

H. A. Stocker Machinery Co., 20 S. Clinton
St., Chicago, Ill.

A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit,
Mich.

Gear Cutting Tools—

(See Cutters, Milling.)

Gear Lubricants—

(See Lubricants, Gear.)

Gear Testing Machines—

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Gear Wheel Cutting, In-

ternal—

Boston Gear Works, Norfolk Downs, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Earle Gear & Machine Co., Stenton and
Wyoming Ave., Philadelphia, Pa.

Fawcuss Machine Co., Pittsburgh, Pa.

Footo Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Gleason Works, Rochester, N. Y.

Gould & Eberhardt, Newark, N. J.

New Process Raw Hide Co., Syracuse,
N. Y.

R. D. Nuttall Co., Pittsburgh, Pa.

Pratt & Whitney Co., Hartford, Ct.

Stow Flexible Shaft Co., 26th & Callow-
hill Sts., Philadelphia, Pa.

Gearing, Mill—

H. W. Caldwell & Son, Western Ave. &
17th St., Chicago, Ill.

Fawcuss Machine Co., Pittsburgh, Pa.

Gearing, Worm

Boston Gear Works, Norfolk Downs, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

H. W. Caldwell & Son Co., Western Ave.,
17th and 18th Sts., Chicago, Ill.

Geo. V. Cresson Co., 18th St. & Alle-
gheny Ave., Philadelphia, Pa.

Earle Gear & Machine Co., Stenton and
Wyoming Ave., Philadelphia, Pa.

Eberhardt Bros. Machine Co., Newark,
N. J.

Fawcuss Machine Co., Pittsburgh, Pa.

Footo Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Gleason Works, Rochester, N. Y.

Gould & Eberhardt, Newark, N. J.

Heindel Mfg. Co., Hanover, Pa.

Horsburgh & Scott Co., Cleveland, O.

Morse, Williams & Co., Philadelphia, Pa.
R. D. Nuttall Co., Pittsburgh, Pa.
Philadelphia Roll & Machine Co., 23d
St. and Washington Ave., Philadelphia.
Poole Engineering & Machine Co., Balti-
more, Md.
Warsaw Elevator Co., Warsaw, N. Y.

Gears—

Birmingham Iron Foundry, Derby, Ct.
Boston Gear Works, Norfolk Downs, Mass.
Brown & Sharpe Mfg. Co., Providence,
R. I.

H. W. Caldwell & Son Co., Western Ave.,
17th and 18th Sts., Chicago, Ill.
W. E. Caldwell Co., Louisville, Ky.

Cape Ann Tool Co., Pigeon Cove, Mass.
Case Mfg. Co., Columbus, O.

Chicago Pneumatic Tool Co., Fisher
Bldg., Chicago, Ill.

Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.

Earle Gear & Machine Co., Stenton and
Wyoming Ave., Philadelphia, Pa.

Eberhardt Bros. Machine Co., Newark,
N. J.

Farrel Foundry & Mach. Co., Ansonia, Ct.
Fawcus Machine Co., Pittsburgh, Pa.

Footo Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Wm. Gardam & Sons, Inc., 221 Fulton
St., New York.

Gleason Works, Rochester, N. Y.
Gould & Eberhardt, Newark, N. J.

E. Harrington Scott & Co. (Inc.), Phila-
delphia, Pa.

Horsburgh & Scott, Cleveland, O.
Humphrey Machine Co., Keene, N. H.

Lebanon Steel Casting Co., Lebanon, Pa.
Morse, Williams & Co., Philadelphia, Pa.

New Process Raw Hide Co., Syracuse,
N. Y.

R. D. Nuttall Co., Pittsburgh, Pa.
Philadelphia Roll & Machine Co., 23d St.

and Washington Ave., Philadelphia.
Poole Engineering & Machine Co., Balti-
more, Md.

Thomas Prosser & Son, 26 Platt St., N. Y.
Soule Steam Feed Works, Meridian, Miss.

Stow Flexible Shaft Co., 26th and Callow-
hill Sts., Philadelphia, Pa.

Webster Mfg. Co., 1075-1111 W. 15th St.,
Chicago, Ill.

Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Gears, Automobile—

Bethlehem Steel Co., So. Bethlehem, Pa.
Boston Gear Works, Norfolk Downs, Mass.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Cape Ann Tool Co., Pigeon Cove, Mass.
Earle Gear & Machine Co., Stenton and
Wyoming Ave., Philadelphia, Pa.

Fawcus Machine Co., Pittsburgh, Pa.
Footo Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Gleason Works, Rochester, N. Y.
Horsburgh & Scott, Cleveland, O.

Otto Konigslow Mfg. Co., Cleveland, O.
New Process Raw Hide Co., Syracuse,
N. Y.

R. D. Nuttall Co., Pittsburgh, Pa.
Thomas Prosser & Son, 26 Platt St., N. Y.

Gears, Automobile Equaliz-

ing—
Brown & Sharpe Mfg. Co., Providence,
R. I.

Fawcus Machine Co., Pittsburgh, Pa.
Footo Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Gleason Works, Rochester, N. Y.
New Process Raw Hide Co., Syracuse,
N. Y.

Thomas Prosser & Son, 26 Platt St., N. Y.

Gears, Baby Carriage—

E. R. Wagner Mfg. Co., North Milwau-
kee, Wis.

Gears, Bevel, Generated

Teeth—

Boston Gear Works, Norfolk Downs, Mass.

Gears, Brass—

Boston Gear Works, Norfolk Downs, Mass.
Fawcus Machine Co., Pittsburgh, Pa.

Poole Engineering & Machine Co., Balti-
more, Md.

Gears, Bronze—

United Engineering & Foundry Co.,
Pittsburgh, Pa.

Gears, Cast Iron—

Bethlehem Foundry & Machine Co., South
Bethlehem, Pa.

Birmingham Iron Foundry, Derby, Ct.
H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

Cape Ann Tool Co., Pigeon Cove, Mass.
Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.
East Bangor Mfg. Co., East Bangor, Pa.

Farrel Foundry & Machine Co., Ansonia,
Ct.

Fawcus Machine Co., Pittsburgh, Pa.
Humphrey Machine Co., Keene, N. H.

Mackintosh, Hemphill & Co., Pittsburgh,
Pa.

Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia.

Poole Engineering & Machine Co., Balti-
more, Md.

United Engineering & Foundry Co.,
Pittsburgh, Pa.

Gears, Cast, Semi-Steel—

Birmingham Iron Foundry, Derby, Ct.
H. W. Caldwell & Son Co., Western Ave.
& 17th St., Chicago, Ill.

Gears, Cast Steel—

H. W. Caldwell & Son Co., Western Ave.,
17th and 18th Sts., Chicago, Ill.

Fawcus Machine Co., Pittsburgh, Pa.
Keystone Steel Casting Co., Chester, Pa.

Lebanon Steel Casting Co., Lebanon, Pa.
Mackintosh, Hemphill & Co., Pittsburgh,
Pa.

Taylor Iron & Steel Co., High Bridge,
N. J.

United Engineering & Foundry Co.,
Pittsburgh, Pa.

Gears, Charcoal Gun Iron—

Poole Engineering Co., Baltimore, Md.

Gears, Child's Express

Wagon—

E. R. Wagner Mfg. Co., North Milwau-
kee, Wis.

Gears, Compensating Bevel—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Fawcus Machine Co., Pittsburgh, Pa.
Footo Bros. Gear & Machine Co., 24-30
S. Clinton St., Chicago, Ill.

Gleason Works, Rochester, N. Y.
Horsburgh & Scott, Cleveland, O.

New Process Raw Hide Co., Syracuse,
N. Y.

Gears, Cut—

Cape Ann Tool Co., Pigeon Cove, Mass.
 Geo. V. Cresson & Co., 18th St. and
 Allegheny Ave., Philadelphia, Pa.
 Fawcus Machine Co., Pittsburgh, Pa.
 Foote Bros. Gear & Machine Co., 24-30
 S. Clinton St., Chicago, Ill.
 Horsburgh & Scott, Cleveland, O.
 Mesta Machine Co., Pittsburgh, Pa.
 Stow Flexible Shaft Co., 26th & Callow-
 hill Sts., Philadelphia, Pa.
 Taylor-Wilson Mfg. Co., McKees Rocks,
 Pa.
 United Engineering & Foundry Co.,
 Pittsburgh, Pa.

Gears, Doll Carriage—

E. R. Wagner Mfg. Co., North Milwau-
 kee, Wis.

Gears, Equalizing—

Fawcus Machine Co., Pittsburgh, Pa.

Gears, Fiber—

Boston Gear Works, Norfolk Downs, Mass.
 Fawcus Machine Co., Pittsburgh, Pa.
 New Process Raw Hide Co., Syracuse,
 N. Y.

R. D. Nuttall Co., Pittsburgh, Pa.

Gears, Folding Cart—

E. R. Wagner Mfg. Co., North Milwau-
 kee, Wis.

**Gears for Electric Rail-
ways—**

E. W. Bliss Co., Brooklyn, N. Y.

Gears, Forged Steel—

E. W. Bliss Co., Brooklyn, N. Y.
 Fawcus Machine Co., Pittsburgh, Pa.
 Foote Bros. Gear & Machine Co., 24-30
 S. Clinton St., Chicago, Ill.
 Horsburgh & Scott, Cleveland, O.
 Thomas Prosser & Son, 26 Platt St., N. Y.

Gears, Generated Teeth—

Boston Gear Works, Norfolk Downs, Mass.
 Eberhardt Bros. Machine Co., Newark,
 N. J.

Gears, Go-Cart—

E. R. Wagner Mfg. Co., North Milwau-
 kee, Wis.

Gears, Helical—

Poole Engineering & Machine Co., Balti-
 more, Md.

Gears, High Speed—

Boston Gear Works, Norfolk Downs, Mass.

Gears, Internal—

Poole Engineering & Machine Co., Balti-
 more, Md.

Gears, Machine Molded—

Birmingham Iron Foundry, Derby, Ct.
 H. W. Caldwell & Son Co., Western Ave.
 and 17th St., Chicago, Ill.
 Geo. V. Cresson Co., 18th St. and Alle-
 gheny Ave., Philadelphia, Pa.
 Farrel Foundry & Mach. Co., Ansonia, Ct.
 Fawcus Machine Co., Pittsburgh, Pa.
 Mesta Machine Co., Pittsburgh, Pa.
 Poole Engineering & Machine Co., Balti-
 more, Md.
 Taylor-Wilson Mfg. Co., McKees Rocks,
 Pa.

Gears, Marine Reverse—

Carlyle Machine Co., Hartford, Ct.
 Fawcus Machine Co., Pittsburgh, Pa.

Gears, Planed Bevel—

Geo. V. Cresson Co., 18th St. and Alle-
 gheny Ave., Philadelphia, Pa.
 Fawcus Machine Co., Pittsburgh, Pa.

Foote Bros. Gear & Machine Co., 24-30

So. Canal St., Chicago, Ill.
 Horsburgh & Scott, Cleveland, O.
 Poole Engineering & Machine Co., Balti-
 more, Md.

Gears, Raw Hide—

Boston Gear Works, Norfolk Downs, Mass.
 Brown & Sharpe Mfg. Co., Providence,
 R. I.

Geo. V. Cresson Co., 18th St. and Alle-
 gheny Ave., Philadelphia, Pa.

Earle Gear & Machine Co., Stenton and
 Wroning Ave., Philadelphia, Pa.

Fawcus Machine Co., Pittsburgh, Pa.
 Foote Bros. Gear & Machine Co., 24-30

S. Clinton St., Chicago, Ill.

Gleason Works, Rochester, N. Y.

Horsburgh & Scott Co., Cleveland, O.
 New Process Raw Hide Co., Syracuse,
 N. Y.

R. D. Nuttall Co., Pittsburgh, Pa.
 Poole Engineering & Machine Co., Balti-
 more, Md.

Gears, Semi-Steel—

Keystone Steel Casting Co., Chester, Pa.
 Mackintosh, Hemphill & Co., Pittsburgh,
 Pa.

Gears, Wood Cog—

H. W. Caldwell & Son Co., Western Ave.
 and 17th St., Chicago, Ill.

Fawcus Machine Co., Pittsburgh, Pa.
 Humphrey Machine Co., Keene, N. H.

Poole Engineering & Machine Co., Balti-
 more, Md.

Gears, Worm Reduction—

Boston Gear Works, Norfolk Downs, Mass.
 Foote Bros. Gear & Machine Co., 24-30

S. Clinton St., Chicago, Ill.

Gem Pans—

(See Pans, Gem.)
 Generators, Acetylene Gas—

R. E. Dietz Co., 60 Light St., N. Y.

Generators, Electric—

(See Dynamos.)
 Generators, Gas—

American Gas Furnace Co., 23 John St.,
 New York.

Generators, Gasoline—

American Gas Machine Co., Albert Lea,
 Minn.

German Silver—

Bridgeport Brass Co., 23 B'way, N. Y.
 Plume & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. J.
 Arthur T. Rutter & Co., 256 Broadway,
 New York.

Secvill Mfg. Co., Waterbury, Ct.
 Seymour Mfg. Co., Seymour, Ct.

Waterbury Brass Co., Waterbury, Ct.

German Silver Tubing—

(See Tubing.)
 Gimlets and Gimlet Bits—

Goodell-Pratt Co., Greenfield, Mass.
 C. E. Jennings & Co., 42 Murray St.,
 New York.

H. H. Mayhew Co., Shelburne Falls, Mass.
 Russell & Erwin Mfg. Co., 91-98 Lafayette
 St., New York.

Snell Mfg. Co., Fiskdale, Mass.
 James Swan Co., Seymour, Ct.

Gins, Ice Hoisting—

Clifford-Wood Co., Arlington, Mass.

Girder Clamps, Rails—

(See Clamps, Rails.)
 Girders—

(See Buildings and Bridges.)

- Glass Boards—**
(See Boards, Glass.)
- Glass Cutters, Glass Tube Cutters—**
(See Cutters.)
- Glass Hooks, Tubes—**
(See Hooks, Tubes.)
- Glass, Quartz—**
Charles Engelhard, 32 Cortlandt St., N. Y.
- Glass Works Machinery—**
Wheeling Mold & Foundry Co., Wheeling, W. Va.
Vette Foundry & Machine Co., Pittsburgh, Pa.
- Glasses Holders—**
(See Holders, Glasses.)
- Glasses, Level—**
Chapin-Stephens Co., Pine Meadow, Ct.
Henry Disston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., New York.
Stanley Rule & Level Co., New Britain, Ct.
- Glasses, Opera, Field—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Glasses, Scotch Gauge—**
Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
Lunkenheimer Co., Cincinnati, O.
- Glasses, Shaving, Adjustable—**
Caldwell Mfg. Co., Rochester, N. Y.
- Glaziers' Points, Rules—**
(See Points, Rules.)
- Glove Boxes—**
(See Boxes, Silver Plated.)
- Glove Buttoners—**
(See Hooks, Button.)
- Gloves, Metal—**
Smith & Hemenway Co., 108-110 Duane St., New York.
- Glue—**
Baeder, Adamson & Co., 210 Chestnut St., Philadelphia, Pa.
- Glue Heaters—**
(See Heaters, Glue.)
- Glue, Liquid Fish—**
Tower & Lyon Co., 95 Chambers St., New York.
- Glue Room Appliances—**
Oliver Machinery Co., Grand Rapids, Mich.
- Gluing Machines—**
George A. Ohl & Co., Newark, N. J.
- Gold—**
Baker & Co., Inc., Newark, N. J.
- Gold or Platers' Metal—**
(See Metal, Platers' or Gold.)
- Golf Head Lathes—**
(See Lathes, Golf Head.)
- Golf Irons—**
(See Irons, Golf.)
- Golf Link Rollers—**
(See Rollers, Lawn.)
- Gong Bells—**
(See Bells, Gong.)
- Gongs—**
Hercules Brass & Bell Foundry, Cincinnati, O.
H. A. Matthews Mfg. Co., Seymour, Ct.
Frank Mossberg Co., Attleboro, Mass.
Wm. Powell Co., Cincinnati, O.
Wallace Supply Co., 19 So. Jefferson St., Chicago, Ill.
- Gongs and Chimes, Altar—**
(See Bells, Altar and Lodge.)
- Gongs, Tanged, Socket—**
(See Chisels and Gouges.)
- Gouges, Wood—**
Kreuter & Co., Inc., Newark, N. J.
- Governors, Engine—**
Jarecki Mfg. Co., Erie, Pa.
- Governors, Pump—**
Julian D'Este Co., Boston, Mass.
John H. McGowan Co., Cincinnati, O.
- Mason Regulator Co., Boston, Mass.**
- Governors, Tank—**
Mason Regulator Co., Boston, Mass.
- Grabs, Rafter—**
(See Grapples, Rafter.)
- Graders, Road—**
(See Levelers and Graders, Road.)
- Graduated Scales—**
(See Scales, Graduated.)
- Grain Cradles, Elevators, Scales, Scoops—**
(See Cradles, Elevators, Scales, Scoops.)
- Grain Handling Machinery—**
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
Dodge Mfg. Co., Mishawaka, Ind.
Jeffrey Mfg. Co., Columbus, O.
Poole Engineering & Machine Co., Baltimore, Md.
Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.
- Granite Drills—**
(See Chisels and Drills.)
- Grape Hoes—**
(See Hoes, Grape.)
- Graphite—**
Geo. G. Blackwell, Sons & Co., Ltd., The Albany, Liverpool, England.
Jos. Dixon Crucible Co., Jersey City, N. J.
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.
S. Obermayer Co., Cincinnati, O.
J. D. Smith Foundry Supply Co., Cleveland, O.
Springfield Facing Co., Springfield, Mass.
Western Foundry Supply Co., Cliff and John Sts., New York.
- Grapples, Ice—**
(See Ice Harvesting Tools.)
- Grapples, Rafter—**
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
F. E. Myers & Bro., Ashland, O.
Ney Mfg. Co., Canton, O.
- Grappling Irons—**
(See Irons, Grappling.)
- Grass Catchers and Collectors—**
(See Catchers, Grass.)
- Grass Hook Handles—**
(See Handles, Grass Hook.)
- Grate Bars—**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
A. D. Granger Co., West St. Bldg., N. Y.
McClave-Brooks Co., Scranton, Pa.
R. Munroe & Sons Corporation, Pittsburgh, Pa.
Walker Foundry Co., Erie, Pa.
Western Foundry & Sash Weight Co., 2d and Miller Sts., St. Louis, Mo.
- Grate Bars, Shaking—**
A. D. Granger Co., West St. Bldg., N. Y.
McClave-Brooks Co., Scranton, Pa.
R. Munroe & Sons Corporation, Pittsburgh, Pa.
- Grate Guards—**
(See Guards, Grate.)

- Graters, Corn-**
Henry Dugston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.
- Graters, Putty-**
Caldwell Mfg. Co., Rochester, N. Y.
- Grates, Cut Off-**
McClave-Brooks Co., Scranton, Pa.
- Grates, Extension-**
(See Stove Repairs.)
- Grates, Mantel-**
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
- Grates, Parlor Gas-**
Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
- Grates, Portable-**
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
- Grates, Shaking-**
McClave-Brooks Co., Scranton, Pa.
- Gratings, Area-**
(See Iron Work, Builders'.)
- Gratings, Foundation, Sewer, &c.-**
(See Iron Work, Builders'.)
- Gravel Furnaces-**
(See Furnaces, Portable, &c.)
- Gray Iron-**
Taylor-Wilson Mfg. Co., McKees Rocks, Pa.
- Grease, Axle-**
Dearborn Drug & Chemical Works, Postal Telegraph Bldg., Chicago, Ill.
- Grease, Disc Grinder-**
Jos. Dixon Crucible Co., Jersey City, N. J.
- Grease, Gun-**
Gardner Machine Co., Beloit, Wis.
- Grease, Waterproof-**
Otto Konigsow Mfg. Co., Cleveland, O.
- Grease, Wire Rope-**
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.
- Grease, Wire Rope-**
Jos. Dixon Crucible Co., Jersey City, N. J.
- Griddles, Cake-**
Broderick & Bascom Rope Co., St. Louis.
- Griddles, Circular Saw-**
Advance Mfg. Co., Racine, Wis.
- Griddles, Soapstone-**
Avery Stamping Co., Cleveland, O.
- Griddles, Steel-**
S. Cheney & Son, Manlius, N. Y.
- Grilles, Iron-**
Smith & Hemenway Co., 108-110 Duane St., New York.
- Grinder Attachment for Disc-**
Stuart & Peterson Co., Burlington, N. J.
- Grinder, Electric-**
General Electric Co., Schenectady, N. Y.
- Griddles, Gas-**
Griswold Mfg. Co., Erie, Pa.
- Griddles, Soapstone-**
Pike Mfg. Co., Pike, N. H.
- Griddles, Steel-**
(See Ware, Hollow Steel.)
- Grilles, Iron-**
(See Iron, Brass and Bronze, Ornamental.)
- Grinder Attachment for Disc-**
Royal Mfg. Co., Lancaster, Pa.
- Grinders' and Polishers' Supplies-**
Carborundum Co., Niagara Falls, N. Y.
Diamond Machine Co., Providence, R. I.
Hanson & Van Winkle Co., Newark, N. J.
Northampton Emery Wheel Co., Leeds, Mass.
- S. Obermayer Co., Cincinnati, O.**
Superior Corundum Wheel Co., Waltham, Mass.
- Zucker & Levett & Loeb Co., 525-530 West 25th St., New York.**
- Grinders, Automatic Knife-**
Bridgeport Safety Emery Wheel Co., Inc., Bridgeport, Ct.
- Diamond Machine Co., Providence, R. I.**
Safety Emery Wheel Co., Springfield, O.
- Sterling Emery Wheel Mfg. Co., Tiffin, O.**
- Grinders, Bench-**
Becker-Brainard Milling Machine Co., Hyde Park, Mass.
- Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.**
Brown & Sharpe Mfg. Co., Providence, R. I.
- Builders' Iron Foundry, Providence, R. I.**
Jas. Clark, Jr., Electric Co., Louisville, Ky.
- Diamond Machine Co., Providence, R. I.**
Grant Mfg. & Machine Co., Bridgeport, Ct.
- Hisey-Wolf Machine Co., Cincinnati, O.**
Norton Grinding Co., Worcester, Mass.
- Oliver Machinery Co., Grand Rapids, Mich.**
Pratt & Whitney Co., Hartford, Ct.
- Ransom Mfg. Co., Oshkosh, Wis.**
Safety Emery Wheel Co., Springfield, O.
- Sterling Emery Wheel Mfg. Co., Tiffin, O.**
Superior Corundum Wheel Co., Waltham, Mass.
- United States Electrical Tool Co., Cincinnati, O.**
Vittrified Wheel Co., Westfield, Mass.
- Washburn Shops, Worcester, Mass.**
Webster & Perks Tool Co., Springfield, O.
- MERCHANTS-**
American Emery Wheel Works, Providence, R. I.
- Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.**
Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.
- Motch & Merryweather Machinery Co., Cleveland, O.**
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
- Vandyck-Churchill Co., 8 Dey St., N. Y.**
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
- C. C. Wormer Machinery Co., Detroit, Mich.**
- Grinders, Car Wheel-**
Norton Grinding Co., Worcester, Mass.
- Springfield Mfg. Co., Bridgeport, Ct.**
- Grinders, Chisel-**
Millers Falls Co., 28 Warren St., N. Y.
- Grinders, Circular Saw-**
E. C. Atkins & Co., Indianapolis, Ind.
- Vandyck-Churchill Co., 8 Dey St., N. Y.**
- Grinders, Cup, Cone and Hub-**
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
- Safety Emery Wheel Co., Springfield, O.**
Sterling Emery Wheel Mfg. Co., Tiffin, O.
- Grinders, Cutter-**
Becker-Brainard Milling Machine Co., Hyde Park, Mass.
- Brown & Sharpe Mfg. Co., Providence, R. I.**
Cincinnati Milling Machine Co., Cincinnati, O.
- Jas. Clark, Jr., Electric Co., Louisville, Ky.**
Diamond Machine Co., Providence, R. I.
- Garvin Machine Co., Spring & Varick Sts., New York.**
Gould & Eberhardt, Newark, N. J.

Hisey-Wolf Machine Co., Cincinnati, O.
Ingersoll Milling Machine Co., Rockford, Ill.
W. H. Leland & Co., Worcester, Mass.
National Machine Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.
Norton Grinding Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Ct.
Sloan & Chace Mfg. Co., Ltd., Newark, N. J.
United States Electrical Tool Co., Cincinnati, O.
F. E. Wells & Sons Co., Greenfield, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Marshall & Hushcart Machinery Co., 62 S. Canal St., Chicago, Ill.
Mott & Merryweather Machinery Co., Cleveland, O.
Prentiss Tool & Supply Co., 115 Liberty St., New York.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
Vandeyk-Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
C. G. Wormer Machinery Co., Detroit, Mich.

Grinders, Cylinder—

Heald Machine Co., Worcester, Mass.
United States Electrical Tool Co., Cincinnati, O.

Grinders, Disc—

Armstrong Bros. Tool Co., 104-124 N. Francisco Ave., Chicago, Ill.
Chas. H. Besly & Co., 15-21 S. Clinton St., Chicago, Ill.
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Crescent Machine Co., Leetonia, O.
Diamond Machine Co., Providence, R. I.
Fox Machine Co., Grand Rapids, Mich.
Gardner Machine Co., Beloit, Wis.
Heald Machine Co., Worcester, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Niles-Bement-Pond Co., 111 Broadway, New York.
O. K. Tool Holder Co., Shelton, Ct.
Ransom Mfg. Co., Oshkosh, Wis.
Safety Emery Wheel Co., Springfield, O.
Taylor & Fenn Co., Hartford, Ct.

Grinders, Drill—

Diamond Machine Co., Providence, R. I.
Garvin Machine Co., Spring & Varick Sts., New York.
Heald Machine Co., Worcester, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Niles-Bement-Pond Co., 111 Broadway, New York.
Royal Mfg. Co., Lancaster, Pa.
Superior Corundum Wheel Co., Waltham, Mass.
Washburn Shops, Worcester, Mass.

MERCHANTS.

American Emery Wheel Works, Providence, R. I.

Brown & Zortman Machinery Co., Pittsburgh, Pa.
Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Marshall & Hushcart Machinery Co., 62 S. Canal St., Chicago, Ill.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
Vandeyk-Churchill Co., 8 Dey St., N. Y.
Vittrified Wheel Co., Westfield, Mass.
C. G. Wormer Machinery Co., Detroit, Mich.

Grinders, Edge—

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Mummert, Wolf & Dixon Co., Hanover, Pa.

Grinders, Electric Driven—

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Jas. Clark, Jr., Electric Co., Louisville, Ky.
General Electric Co., Schenectady, N. Y.
Heald Machine Co., Worcester, Mass.
Hisey-Wolf Machine Co., Cincinnati, O.
Niles-Bement-Pond Co., 111 Broadway, New York.
Northern Electrical Mfg. Co., Madison, Wis.

Ransom Mfg. Co., Oshkosh, Wis.
Safety Emery Wheel Co., Springfield, O.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
United States Electric Tool Co., Cincinnati, O.

Grinders, Foot and Hand

Power—
Royal Mfg. Co., Lancaster, Pa.
Grinders for Wire Nail Dies—
Henry Perkins Co., Bridgewater, Mass.

Grinders, Internal—

Landis Tool Co., Weynesboro, Pa.
Grinders, Knife and Scissors—

American Emery Wheel Works, Providence, R. I.
Royal Mfg. Co., Lancaster, Pa.

Grinders, Lathe—

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.
Diamond Machine Co., Providence, R. I.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.
J. L. Osgood, Buffalo, N. Y.
Springfield Mfg. Co., Bridgeport, Ct.
United States Electrical Tool Co., Cincinnati, O.

Grinders, Lathe Center—

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.
Jas. Clark, Jr., Electric Co., Louisville, Ky.
Coates Clipper Mfg. Co., Worcester, Mass.
Diamond Machine Co., Providence, R. I.
Gem Mfg. Co., Pittsburgh, Pa.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Hisey-Wolf Machine Co., Cincinnati, O.

Graters, Corn—
Henry Diston & Sons, Philadelphia, Pa.
Graters, Nutmeg—
Caldwell Mfg. Co., Rochester, N. Y.
Grates, Cast Iron—
McClave-Brooks Co., Scranton, Pa.
Grates, Extension—
(See Stove Repairs.)
Grates, Mantel—
Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.
Grates, Parlor Gas—
Schneider & Trenkamp Div., Am. Stove
Co., Cleveland, O.
Grates, Portable—
Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.
Grates, Shaking—
McClave-Brooks Co., Scranton, Pa.
Grating, Area—
(See Iron Work, Builders'.)
Gratings, Foundation—
(See Iron Work, Builders'.)
Gravel Furnaces—
(See Furnaces, Portable, &c.)
Gray Iron—
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.
Grease, Aisle—
Dearborn Drug & Chemical Works, Postal
Telegraph Bldg., Chicago, Ill.
Jos. Dixon Crucible Co., Jersey City, N. J.
Grease, Disc Grinder—
Gardner Machine Co., Beloit, Wis.
Grease, Gun—
Otto Konigslaw Mfg. Co., Cleveland, O.
J. Stevens Arms & Tool Co., Chicopee
Falls, Mass.
Grease, Waterproof—
Jos. Dixon Crucible Co., Jersey City, N. J.
Grease, Wire Rope—
Broderick & Bascom Rope Co., St. Louis.
Griddles, Cake—
Advance Mfg. Co., Racine, Wisc.
Avery Stamping Co., Cleveland, O.
S. Cheney & Son, Manlius, N. Y.
Smith & Hemenway Co., 108-110 Duane
St., New York.
Stuart & Peterson Co., Burlington, N. J.
Griddles, Cake, Electric—
General Electric Co., Schenectady, N. Y.
Griddles, Gas—
Griswold Mfg. Co., Erie, Pa.
Griddles, Soapstone—
Pike Mfg. Co., Pike, N. H.
Griddles, Steel—
(See Ware, Hollow Steel.)
Grilles, Iron—
(See Iron, Brass and Bronze, Ornamental.)
**Grinder Attachment for
Disc—**
Royal Mfg. Co., Lancaster, Pa.
**Grinders' and Polishers'
Supplies—**
Carborundum Co., Niagara Falls, N. Y.
Diamond Machine Co., Providence, R. I.
Hanson & Van Winkle Co., Newark, N. J.
Northampton Emery Wheel Co., Leeds,
Mass.
S. Obermayer Co., Cincinnati, O.
Superior Corundum Wheel Co., Waltham,
Mass.
**Zucker & Levett & Loeb Co., 526-530 West
25th St., New York.**

Grinders, Automatic Knife—
Bridgeport Safety Emery Wheel Co., Inc.,
Bridgeport, Ct.
Diamond Machine Co., Providence, R. I.
Safety Emery Wheel Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Grinders, Bench—
Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.
Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.
Brown & Sharpe Mfg. Co., Providence,
R. I.
Builders' Iron Foundry, Providence, R. I.
Jas. Clark, Jr., Electric Co., Louisville,
Ky.
Diamond Machine Co., Providence, R. I.
Grant Mfg. & Machine Co., Bridgeport,
Ct.
Hisey-Wolf Machine Co., Cincinnati, O.
Norton Grinding Co., Worcester, Mass.
Oliver Machinery Co., Grand Rapids,
Mich.
Pratt & Whitney Co., Hartford, Ct.
Ransom Mfg. Co., Oshkosh, Wis.
Safety Emery Wheel Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Superior Corundum Wheel Co., Waltham,
Mass.
United States Electrical Tool Co., Cincinnati, O.
Vitrified Wheel Co., Westfield, Mass.
Washburn Shops, Worcester, Mass.
Webster & Perks Tool Co., Springfield, O.
MERCHANTS.
American Emery Wheel Works, Providence, R. I.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.
Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.
Mote & Merryweather Machinery Co.,
Cleveland, O.
H. A. Stocker Machinery Co., 20 S. Clinton
St., Chicago, Ill.
Vandyck-Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.
C. C. Wormer Machinery Co., Detroit,
Mich.
Grinders, Car Wheel—
Norton Grinding Co., Worcester, Mass.
Springfield Mfg. Co., Bridgeport, Ct.
Grinders, Chisel—
Millers Falls Co., 23 Warren St., N. Y.
Grinders, Circular Saw—
E. C. Atkins & Co., Indianapolis, Ind.
Vandyck-Churchill Co., 8 Dey St., N. Y.
**Grinders, Cup, Cone and
Hub—**
Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.
Safety Emery Wheel Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Grinders, Cutter—
Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.
Brown & Sharpe Mfg. Co., Providence,
R. I.
Cincinnati Milling Machine Co., Cincinnati, O.
Jas. Clark, Jr., Electric Co., Louisville,
Ky.
Diamond Machine Co., Providence, R. I.
Garvin Machine Co., Spring & Varick Sts.,
New York.
Gould & Eberhardt, Newark, N. J.

Hisey-Wolf Machine Co., Cincinnati, O.
Ingersoll Milling Machine Co., Rockford, Ill.
W. H. Leland & Co., Worcester, Mass.
National Machine Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York
Norton Grinding Co., Worcester, Mass.
Praet & Whitney Co., Hartford, Ct.
Sloan & Chace Mfg. Co., Ltd., Newark, N. J.
United States Electrical Tool Co., Cincinnati, O.
F. E. Wells & Sons Co., Greenfield, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York
Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.
Match & Merryweather Machinery Co., Cleveland, O.
Prentiss Tool & Supply Co., 115 Liberty St., New York
Sterling Emery Wheel Mfg. Co., Tiffin, O.
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
Vandyck-Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
C. C. Wormer Machinery Co., Detroit, Mich.

Grinders, Cylinder—
Heald Machine Co., Worcester, Mass.
United States Electrical Tool Co., Cincinnati, O.

Grinders, Disc—
Armstrong Bros. Tool Co., 104-124 N. Francisco Ave., Chicago, Ill.
Chas. H. Besly & Co., 15-21 S. Clinton St., Chicago, Ill.
Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Crescent Machine Co., Leetonia, O.
Diamond Machine Co., Providence, R. I.
Fox Machine Co., Grand Rapids, Mich.
Gardner Machine Co., Beloit, Wis.
Heald Machine Co., Worcester, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Niles-Bement-Pond Co., 111 Broadway, New York
O. K. Tool Holder Co., Shelton, Ct.
Ransom Mfg. Co., Oshkosh, Wis.
Safety Emery Wheel Co., Springfield, O.
Taylor & Fenn Co., Hartford, Ct.

Grinders, Drill—
Diamond Machine Co., Providence, R. I.
Garvin Machine Co., Spring & Varick Sts., New York
Heald Machine Co., Worcester, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Niles-Bement-Pond Co., 111 Broadway, New York
Royal Mfg. Co., Lancaster, Pa.
Superior Corundum Wheel Co., Waltham, Mass.
Washburn Shops, Worcester, Mass.

MERCHANTS.

American Emery Wheel Works, Providence, R. I.

Brown & Zortman Machinery Co., Pittsburgh, Pa.
Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York
Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
Vandyck-Churchill Co., 8 Dey St., N. Y.
Vitrified Wheel Co., Westfield, Mass.
C. C. Wormer Machinery Co., Detroit, Mich.

Grinders, Edge—

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Mummert, Wolf & Dixon Co., Hanover, Pa.

Grinders, Electric Driven—

Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Jas. Clark, Jr., Electric Co., Louisville, Ky.
General Electric Co., Schenectady, N. Y.
Heald Machine Co., Worcester, Mass.
Hisey-Wolf Machine Co., Cincinnati, O.
Niles-Bement-Pond Co., 111 Broadway, New York
Northern Electrical Mfg. Co., Madison, Wis.

Ransom Mfg. Co., Oshkosh, Wis.
Safety Emery Wheel Co., Springfield, O.
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
United States Electric Tool Co., Cincinnati, O.

Grinders, Foot and Hand

Power—
Royal Mfg. Co., Lancaster, Pa.
Grinders for Wire Nail Dies—
Henry Perkins Co., Bridgewater, Mass.

Grinders, Internal—
Landis Tool Co., Waynesboro, Pa.

Grinders, Knife and Scis-

sors—
American Emery Wheel Works, Providence, R. I.
Royal Mfg. Co., Lancaster, Pa.

Grinders, Lathe—
Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.
Diamond Machine Co., Providence, R. I.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York

J. L. Osgood, Buffalo, N. Y.
Springfield Mfg. Co., Bridgeport, Ct.
United States Electrical Tool Co., Cincinnati, O.

Grinders, Lathe Center—

Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.
Jas. Clark, Jr., Electric Co., Louisville, Ky.

Coates Clipper Mfg. Co., Worcester, Mass.
Diamond Machine Co., Providence, R. I.
Gem Mfg. Co., Pittsburgh, Pa.
Grant Mfg. & Machine Co., Bridgeport, Ct.

Hisey-Wolf Machine Co., Cincinnati, O.

- Niles-Bement-Pond Co., 111 Broadway, New York.
 Dwight Slate Machine Co., Hartford, Ct.
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
 United States Electrical Tool Co., Cincinnati, O.
Grinders, Lawn Mower—
 Coldwell Lawn Mower Co., Newburgh, N. Y.
 Springfield Mfg. Co., Bridgeport, Ct.
Grinders, Machine Knife—
 Mummert, Wolf & Dixon Co., Hanover, Pa.
Grinders, Mower Knife—
 S. Cheney & Son, Manlius, N. Y.
Grinders, Piston Ring—
 Heald Machine Co., Worcester, Mass.
Grinders, Planer Knife—
 Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
 Diamond Machine Co., Providence, R. I.
 Northampton Emery Wheel Co., Leeds, Mass.
 Oliver Machinery Co., Grand Rapids, Mich.
 Superior Corundum Wheel Co., Waltham, Mass.
Grinders, Plov Share—
 Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
 Diamond Machine Co., Providence, R. I.
 Safety Emery Wheel Co., Springfield, O.
 Webster & Perks Tool Co., Springfield, O.
Grinders, Portable—
 Jas. Clark, Jr., Electric Co., Louisville, Ky.
 Diamond Machine Co., Providence, R. I.
 Gem Mfg. Co., Pittsburgh, Pa.
 Hisey-Wolf Machine Co., Cincinnati, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
 Stow Mfg. Co., Binghamton, N. Y.
 United States Electrical Tool Co., Cincinnati, O.
Grinders, Portable, Pneumatic—
 Helwig Mfg. Co., St. Paul, Minn.
Grinders, Punch and Die—
 Springfield Mfg. Co., Bridgeport, Ct.
Grinders, Reamer—
 Becker-Brainard Milling Machine Co., Hyde Park, Mass.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Cincinnati Milling Machine Co., Cincinnati, O.
 Jas. Clark, Jr., Electric Co., Louisville, Ky.
 Diamond Machine Co., Providence, R. I.
 Garvin Machine Co., Spring & Varick Sts., New York.
 Heald Machine Co., Worcester, Mass.
 Hisey-Wolf Machine Co., Cincinnati, O.
 Landis Tool Co., Waynesboro, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Norton Grinding Co., Worcester, Mass.
 Pratt & Whitney Co., Hartford, Ct.
 United States Electrical Tool Co., Cincinnati, O.
 F. E. Wells & Sons Co., Greenfield, Mass.
- MERCHANTS.**
- Brown & Zortman Machinery Co., Pittsburgh, Pa.
 Hill, Clarke & Co., Boston, Mass.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Marshall & Husehart Machinery Co., 62 S. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.
 H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
 A. D. White Machinery Co., 3941 S. Canal St., Chicago, Ill.
 C. C. Wormer Machinery Co., Detroit, Mich.
Grinders, Revolving Oil Stone—
 Mummert, Wolf & Dixon Co., Hanover, Pa.
Grinders, Roll—
 Case Mfg. Co., Columbus, O.
 Diamond Machine Co., Providence, R. I.
 Farrel Foundry & Machine Co., Ansonia, Ct.
 E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.
 Norton Grinding Co., Worcester, Mass.
 Safety Emery Wheel Co., Springfield, O.
 Springfield Mfg. Co., Bridgeport, Ct.
 United States Electrical Tool Co., Cincinnati, O.
Grinders, Rotary Shear—
 Springfield Mfg. Co., Bridgeport, Ct.
Grinders, Section, Mower and Reaper—
 Whitman & Barnes Mfg. Co., Chicago.
Grinders, Shafting—
 Diamond Machine Co., Providence, R. I.
 Springfield Mfg. Co., Bridgeport, Ct.
 United States Electrical Tool Co., Cincinnati, O.
Grinders, Sickle—
 Royal Mfg. Co., Lancaster, Pa.
Grinders, Surface—
 Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.
 Bignall & Keeler Mfg. Co., Edwardsville, Ill.
 Blake & Johnson Co., Waterbury, Ct.
 Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Jas. Clark, Jr., Electric Co., Louisville, Ky.
 Diamond Machine Co., Providence, R. I.
 Garvin Machine Co., Spring and Varick Sts., New York.
 Grant Mfg. & Machine Co., Bridgeport, Ct.
 Heald Machine Co., Worcester, Mass.
 Hisey-Wolf Machine Co., Cincinnati, O.
 Landis Tool Co., Waynesboro, Pa.
 National Machine Co., Hartford, Ct.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Norton Grinding Co., Worcester, Mass.
 Ransom Mfg. Co., Oshkosh, Wis.
 Robinson Tool Works, Waterbury, Ct.
 Safety Emery Wheel Co., Springfield, O.
 Springfield Mfg. Co., Bridgeport, Ct.
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
 United States Electrical Tool Co., Cincinnati, O.

MRCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.
Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.
Motch & Merryweather Machinery Co.,
Cleveland, O.
H. A. Stocker Machinery Co., 20 S. Clinton
St., Chicago, Ill.
Vandyck-Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.
C. C. Wormer Machinery Co., Detroit,
Mich.

Grinders, Surface Die—
American Die & Tool Co., Reading, Pa.
Grinders, Swing Frame—
Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.

Diamond Machine Co., Providence, R. I.
Safety Emery Wheel Co., Springfield, O.
Sterling Emery Wheel Mfg. Co., Tiffin, O.

Grinders, Tool—
W. F. & J. Barnes Co., Rockford, Ill.
Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.

Blake & Johnson Co., Waterbury, Ct.
J. C. Blount Co., Everett, Mass.
Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence,
R. I.
Cincinnati Milling Machine Co., Cincinnati,
O.

Jas. Clark, Jr., Electric Co., Louisville,
Ky.

Cutaway Harrow Co., Higganum, Ct.
Diamond Machine Co., Providence, R. I.
Fox Machine Co., Grand Rapids, Mich.
Garvin Machine Co., Spring and Varick
Sts., New York.

Gould & Eberhardt, Newark, N. J.
National Machine Co., Hartford, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Northampton Emery Wheel Co., Leeds,
Mass.

Northern Electrical Mfg. Co., Madison,
Wis.

Norton Grinding Co., Worcester, Mass.
Pike Mfg. Co., Pike, N. H.

Ransom Mfg. Co., Oshkosh, Wis.
Rockford Drilling Machine Co., Rockford,
Ill.

Royal Mfg. Co., Lancaster, Pa.
Safety Emery Wheel Co., Springfield, O.

Springfield Mfg. Co., Bridgeport, Ct.
Sterling Emery Wheel Mfg. Co., Tiffin, O.

Superior Corundum Wheel Co., Waltham,
Mass.

United States Electrical Tool Co., Cincinnati,
O.

Washburn Shops, Worcester, Mass.
Webster & Perks Tool Co., Springfield, O.

F. E. Wells & Sons Co., Greenfield,
Mass.

MRCHANTS.

Brown & Zortman Machinery Co., Pitts-
burgh, Pa.

Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

Edgar M. Moore & Co., Pittsburgh, Pa.
Motch & Merryweather Machinery Co.,
Cleveland, O.

H. A. Stocker Machinery Co., 20 S. Clinton
St., Chicago, Ill.

Vandyck-Churchill Co., 8 Dey St., N. Y.
Vitrified Wheel Co., Westfield, Mass.

A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit,
Mich.

Grinders, Universal—
Brown & Sharpe Mfg. Co., Providence,
R. I.

Cincinnati Milling Machine Co., Cincinnati,
O.

Garvin Machine Co., Spring and Varick
Sts., New York.

Landis Tool Co., Waynesboro, Pa.
W. H. Leland & Co., Worcester, Mass.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Norton Grinding Co., Worcester, Mass.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

F. E. Wells & Sons Co., Greenfield,
Mass.

MRCHANTS.

Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.

H. A. Stocker Machinery Co., 20 S. Clinton
St., Chicago, Ill.

A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit,
Mich.

Grinders, Universal Cutter—
R. K. Le Blond Machine Tool Co., Cincinnati,
O.

**Grinding Machine Attach-
ments—**

Brown & Sharpe Mfg. Co., Providence,
R. I.

Grinding Machines—
American Blower Co., Detroit, Mich.

American Shearer Mfg. Co., Nashua,
N. H.

E. C. Atkins & Co., Indianapolis, Ind.
Chas. H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Blake & Johnson Co., Waterbury, Ct.
J. C. Blount Co., Everett, Mass.

Bridgeport Safety Emery Wheel Co.,
Bridgeport, Ct.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Builders Iron Foundry, Providence, R. I.
Cincinnati Milling Machine Co., Cincinnati,
O.

Jas. Clark, Jr., Electric Co., Louisville,
Ky.

Diamond Machine Co., Providence, R. I.
Henry Diston & Sons, Philadelphia, Pa.

Lodge Mfg. Co., Mishawaka, Ind.
Espin-Lucas Machine Works, Broad and
Noble Sts., Philadelphia, Pa.

Fox Machine Co., Grand Rapids, Mich.
Garvin Machine Co., Spring and Varick
Sts., New York.

Goodell-Pratt Co., Greenfield, Mass.
Grant Mfg. & Machine Co., Bridgeport,
Ct.

Hanson & Van Winkle Co., Newark, N. J.

Hisey-Wolf Machine Co., Cincinnati, O.
 W. H. Leland & Co., Worcester, Mass.
 National Machine Co., Hartford, Ct.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.
 Northampton Emery Wheel Co., Leeds,
 Mass.
 Norton Grinding Co., Worcester, Mass.
 Henry Perkins Co., Bridgewater, Mass.
 Pratt & Whitney Co., Hartford, Ct.
 Ransom Mfg. Co., Oshkosh, Wis.
 Richard Mfg. Co., Bloomsburgh, Pa.
 Safety Emery Wheel Co., Springfield, O.
 Springfield Mfg. Co., Bridgeport, Ct.
 Star Corundum Wheel Co., Detroit, Mich.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
 Stow Flexible Shaft Co., 28th and Callow-
 hill Sts., Philadelphia, Pa.
 Stow Mfg. Co., Binghamton, N. Y.
 Superior Corundum Wheel Co., Waltham,
 Mass.
 United States Electrical Tool Co., Cincin-
 nati, O.
 Vitrified Wheel Co., Westfield, Mass.
 Waltham Machine Works, Waltham, Mass.
 Waterbury Farrel Foundry & Machine
 Co., Waterbury, Ct.
 Webster & Perks Tool Co., Springfield, O.
 F. E. Wells & Sons Co., Greenfield,
 Mass.
 Zucker & Levett & Loeb Co., 526-530 West
 25th St., New York.

MERCHANTS.

American Emery Wheel Works, Provi-
 dence, R. I.
 Baird Machinery Co., Pittsburgh, Pa.
 Carlin Machinery & Supply Co., Inc.,
 Allegheny, Pa.
 Hannon & Pinton, Springfield, Mass.
 Hill, Clarke & Co., Boston, Mass.
 Manning, Maxwell & Moore, Inc., 85-89
 Liberty St., New York.
 Marshall & Husechart Machinery Co., 62-
 64 So. Canal st., Chicago, Ill.
 McDowell, Stocker & Co., 59 So. Canal
 St., Chicago, Ill.
 Motch & Merryweather Machinery Co.,
 Cleveland, O.
 Prentiss Tool & Supply Co., 115 Liberty
 St., New York.
 H. A. Stocker Machinery Co., 20 S. Clin-
 ton St., Chicago, Ill.
 Frank Toomey, 127-131 No. 3d St., Phila-
 delphia, Pa.
 Vandyck-Churchill Co., 8 Dey St., N. Y.
 A. D. White Machinery Co., 39-41 S.
 A. Canal St., Chicago, Ill.
 C. C. Wormer Machinery Co., Detroit,
 Mich.

**Grinding Machines. Auto-
matic Sizing—**

Pratt & Whitney Co., Hartford, Ct.

Grinding Machines. Bush-

Grant Mfg. & Machine Co., Bridgeport,
 Ct.

Grinding Machines for Multi-

ple Throw Crank Shafts—
 Tindel-Morris Co., Eddystone, Pa.

Grinding Machines. Open

Detrick & Harvey Machine Co., Balti-
 more, Md.

Grinding Machines. Plain—
 Landis Tool Co., Waynesboro, Pa.

**Grinding Machines. Verti-
cal—**

Pratt & Whitney Co., New Haven, Ct.

Grindstone Bearings—

Bancroft & Co., Philadelphia, Pa.

Grindstone Boxes—

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Wm. Sellers & Co. (Inc.), 1600 Hamilton
 St., Philadelphia, Pa.

Grindstone Fixtures—

Cleveland Stone Co., Cleveland, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

W. & B. Douglas, Middletown, Ct.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Reading Hardware Co., Reading, Pa.

Susquehanna Casting Co., Wrightsville,
 Pa.

Wrightsville Hardware Co., Wrightsville,
 Pa.

Grindstone Truing De-

Chas. H. Besly & Co., 15-21 Clinton St.,
 Chicago, Ill.

Grindstones, Family—

Cleveland Stone Co., Cleveland, O.

Millers Falls Co., 28 Warren St., N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Pike Mfg. Co., Pike, N. H.

Reading Hardware Co., Reading, Pa.

Grindstones, Mounted—

Cleveland Stone Co., Cleveland, O.

Niles-Bement-Pond Co., 111 Broadway,
 New York.

Whitman & Barnes Mfg. Co., Chicago.

Grindstones, Razor—

Pike Mfg. Co., Pike, N. H.

Grindstones, Unmounted—

Cleveland Stone Co., Cleveland, O.

Pike Mfg. Co., Pike, N. H.

Grips, Bicycle—

J. S. Leng's Son & Co., 33 Murray St.,
 New York.

Chas. L. Stevens & Co., Detroit, Mich.

Grips, Cable—

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Grips, Cord and Line—

Samsom Cordage Works, Boston, Mass.

Grips, Wood, Malleable D—

(See Tops, Malleable D Handle.)

Grommets, Metallic—

Ohio Nut & Bolt Co., Berea, O.

Arthur T. Rutter & Co., 256 Broadway,
 New York.

Scovill Mfg. Co., Waterbury, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Waterbury Brass Co., Waterbury, Ct.

Grooming Machines—

American Shearer Mfg. Co., Nashua,
 N. H.

Chicago Flexible Shaft Co., La Salle Ave.
 & Ontario St., Chicago, Ill.

Wiebusch & Hilger, Ltd., 9-15 Murray
 St., New York.

Grooving Machines—

Niagara Machine & Tool Works, Buffalo,
 N. Y.

George A. Ohi & Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Pratt & Whitney Co., Hartford, Ct.

Grubbing Machines. A 11

Steel—
 Zimmerman Steel Co., Lone Tree, Ia.

- Guards, Bicycle—**
Otto Konigslow Mfg. Co., Cleveland, O.
Sturges & Burn Mfg. Co., Chicago, Ill.
- Guards, Corner, Wheel—**
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
- Guards, Door—**
Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.
- Guards, &c., Elevator—**
Buffalo Wire Works Co., Buffalo, N. Y.
Clinton Wire Cloth Co., Clinton, Mass.
Forest City Steel & Iron Co., Cleveland, O.
Howard & Morse, 45 Fulton St., N. Y.
Ludlow-Saylor Wire Co., St. Louis, Mo.
W. S. Tyler Co., Cleveland, O.
Wright Wire Co., Worcester, Mass.
- Guards, Flower, Lawn and Tomato—**
Anchor Post Iron Works, 42 Park Row, New York.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
Cyclone Fence Co., Waukegan, Ill.
De Kalb Fence Co., De Kalb, Ill.
Dufur & Co., Baltimore, Md.
Enterprise Foundry & Fence Co., Indianapolis, Ind.
Nimmo Fence & Wire Works Co., Norwood, O.
Sleeth-Brook & Seaman Co., 253 Broadway, New York.
Spencer Wire Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.
- Guards, Gas and Electric Light—**
(See Guards, Lamp and Light.)
- Guards, Gate—**
Andrews Wire & Iron Works, Rockford, Ill.
Buffalo Wire Works Co., Buffalo, N. Y.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Dufur & Co., Baltimore, Md.
Estey Wire Works Co., 59 Fulton St., New York.
Gilbert & Bennett Mfg. Co., 277 Broadway, New York.
Glen Mfg. Co., Ellwood City, Pa.
Howard & Morse, 45 Fulton St., N. Y.
S. M. Howes Co., Boston, Mass.
Ludlow-Saylor Wire Co., St. Louis, Mo.
- Guards, Grave—**
Andrews Wire & Iron Works, Rockford, Ill.
Buffalo Wire Works Co., Buffalo, N. Y.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Dufur & Co., Baltimore, Md.
Estey Wire Works Co., 59 Fulton St., New York.
Gilbert & Bennett Mfg. Co., 277 Broadway, New York.
Glen Mfg. Co., Ellwood City, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Spencer Wire Co., Worcester, Mass.
- Guards, Hat—**
American Ring Co., Waterbury, Ct.
- Guards, Hitching Post—**
Andrews Wire & Iron Works, Rockford, Ill.
- Guards, Lamp and Light—**
Andrews Wire & Iron Works, Rockford, Ill.
- Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Estey Wire Works Co., 59 Fulton St., New York.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Parker Wire Goods Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
Wire Goods Co., Worcester, Mass.
- Guards, Radiator—**
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Clinton Wire Cloth Co., Clinton, Mass.
Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
- Guards, Railroad Cattle—**
Sheffield Car Co., Three Rivers, Mich.
- Guards, Saw—**
E. C. Atkins & Co., Indianapolis, Ind.
- Guards, Skylight—**
(See Iron Work, Builders'; also Screens, Skylight Guard.)
- Guards, Snow and Ice—**
Berge Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Forest City Steel & Iron Co., Cleveland, O.
Parker Wire Goods Co., Worcester, Mass.
Spencer Wire Co., Worcester, Mass.
- Guards, Spark—**
(See Guards, Gate.)
- Guards, Tree—**
Anchor Post Iron Works, 42 Park Row, New York.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Buffalo Wire Works Co., Buffalo, N. Y.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
De Kalb Fence Co., De Kalb, Ill.
Dufur & Co., Baltimore, Md.
Estey Wire Works Co., 59 Fulton St., New York.
Forest City Steel & Iron Co., Cleveland, O.
Glen Mfg. Co., Ellwood City, Pa.
Howard & Morse, 45 Fulton St., N. Y.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Nimmo Fence & Wire Works Co., Norwood, O.
Sleeth-Brook & Seaman Co., 253 Broadway, New York.
Spencer Wire Co., Worcester, Mass.
Stewart Iron Works Co., Cincinnati, O.
Van Dorn Iron Works Co., Cleveland, O.
Wright Wire Co., Worcester, Mass.
- Guards, Trouser—**
Bevin Bros. Mfg. Co., Easthampton, Ct.
- Guards, Window, Iron—**
(See Iron, Brass and Bronze, Ornamental.)
- Guards, Window, Wire—**
Anchor Post Iron Works, 42 Park Row, New York.
Andrews Wire & Iron Works, Rockford, Ill.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
Buffalo Wire Works Co., Buffalo, N. Y.
City Forge & Iron Works, Dayton, O.
Clinton Wire Cloth Co., Clinton, Mass.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Dufur & Co., Baltimore, Md.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland, O.

Glen Mfg. Co., Ellwood City, Pa.

Howard & Morse, 45 Fulton St., N. Y.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Michigan Wire Cloth Co., Detroit, Mich.

Nimmo Fence & Wire Works Co., Norwood, O.

J. W. Paxson Co., Philadelphia, Pa.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Van Dorn Iron Works Co., Cleveland, O.

Worcester Wire Novelty Co., Canton, O.

Wright Wire Co., Worcester, Mass.

Guides, Hand Saw—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Disson & Sons, Philadelphia, Pa.

Simonds Mfg. Co., Fitchburg, Mass.

Guides, Draw Shave—

Goodell-Pratt Co., Greenfield, Mass.

Guides, Engine, Shapes for—

Finished Steel Co., Youngstown, O.

Guides, Fishing Rod—

Horton Mfg. Co., Bristol, Ct.

Guides, Lath, Steel—

J. L. Osgood, Buffalo, N. Y.

Guides, Sheet and Rope—

W. & J. Tiebout, 118 Chambers St., N. Y.

Gummer Cutters—

(See Cutters, Gummer.)

Gummers, Saw—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Disson & Sons, Philadelphia, Pa.

Simonds Mfg. Co., Fitchburg, Mass.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Superior Corundum Wheel Co., Waltham, Mass.

Gun Carriages, Forgings—

(See Carriages, Forgings.)

Gun Implements—

Ideal Mfg. Co., New Haven, Ct.

Union Hardware Co., Torrington, Ct.

Waterbury Brass Co., Waterbury, Ct.

Gun Machinery—

Detrick & Harvey Machine Co., Baltimore, Md.

Garvin Machine Co., Spring & Varick Sts., New York

Niles-Bement-Pond Co., 111 Broadway, New York

Pratt & Whitney Co., Hartford, Ct.

Gun Wads—

(See Wads, Gun.)

Guns, Automatic Machine—

Bethlehem Steel Co., So. Bethlehem, Pa.

Colt's Patent Fire Arms Co., Hartford, Ct.

Guns, Gatling—

Colt's Patent Fire Arms Co., Hartford, Ct.

Guns, Insect Powder—

Goodell Co., Antrim, N. H.

Guns, Saluting—

Barney & Berry, Springfield, Mass.

Guns, Shot—

Marlin Fire Arms Co., New Haven, Ct.

Remington Arms Co., 313 Broadway, N. Y.

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Gutters—

(See Eave Troughs and Gutters.)

Gutters in Rolls—

(See Valleys and Gutters in Rolls.)

Guy Strand Wire—

(See Wire Strand Guys, Galvanized.)

Hack Saws, Blades and Frames—

(See Saws, Hack, Blades and Frames.)

Hack Saws, Power—

(See Saws, Power, Hack.)

Hafts, Awl—

(See Handles, Chisels, File, Awl, &c.)

Hair Brushes—

(See Brushes, Silver Plated.)

Hair, Curled—

Baeder, Adamson & Co., 210 Chestnut St., Philadelphia, Pa.

Hair Felting—

(See Felting, Hair.)

Hairpin Wire—

(See Wire, Hairpin.)

Half Hatchets—

(See Hatchets, Shingling, Half, &c.)

Halter Chains, &c.—

(See Chains, Dog and Halter.)

Halters—

Covert Mfg. Co., Troy, N. Y.

Graton & Knight Mfg. Co., Worcester, Mass.

Chas. L. Stevens & Co., Detroit, Mich.

Halters, Leather—

Charles L. Stevens & Co., Detroit, Mich.

Hammer Handles—

(See Handles, Hammer.)

Hammer Wedges—

(See Wedges, Hammer and Hatchet.)

Hammers, Beading, Pneumatic—

Helwig Mfg. Co., St. Paul, Minn.

Hammers, Belt Driven—

Beaudry & Co., Boston, Mass.

C. C. Bradley & Son, Syracuse, N. Y.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Seranton & Co., New Haven, Ct.

Hammers, Bill Posters'—

Long Handle—

Kilborn & Bishop Co., New Haven, Ct.

Arthur R. Robertson, Roston, Mass.

Hammers, Blacksmiths'—

Hand—

Billings & Spencer Co., Hartford, Ct.

Heller Bros. Co., Newark, N. J.

Hubbard & Co., Pittsburgh, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York

Hammers, Boilermakers'—

Billings & Spencer Co., Hartford, Ct.

Ingersoll-Rand Co., 11 Broadway, New York

Hammers, Brass—

Goodell-Pratt Co., Greenfield, Mass.

Hammers, Brick—

L. & I. J. White Co., Buffalo, N. Y.

Hammers, Bronze—

Phosphor Bronze Smelting Co., Ltd., 230 Washington Ave., Philadelphia

Hammers, Carriage Iron—

Heller Bros. Co., Newark, N. J.

Hammers, Cast Iron Claw—

Arcade Mfg. Co., Freeport, Ill.

Columbia Grey Iron Casting Co., Columbia, Pa.

Fanner Mfg. Co., Cleveland, O.

Griswold Mfg. Co., Erie, Pa.

Hammers, Chipping—

Chester B. Albree Iron Works Co., Allegheny, Pa.

E. W. Bliss Co., Brooklyn, N. Y.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Helwig Mfg. Co., St. Paul, Minn.
Ingersoll-Rand Co., 11 Broadway, New York.

Hammers, Chipping and Calking, Pneumatic—
Helwig Mfg. Co., St. Paul, Minn.

Hammers, Combination—
Ulrich Mfg. Co., Rock Falls, Ill.

Hammers, Copper—
U. T. Hungerford Brass & Copper Co., 497-506 Pearl St., New York.
Merchant & Evans Co., Philadelphia, Pa.

Hammers, Drop—
Alliance Machine Co., Alliance, O.
American Tube & Stamping Co., Bridgeport, Ct.

Billings & Spencer Co., Hartford, Ct.
Blake & Johnson Co., Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.

Ferracute Machine Co., Bridgeton, N. J.
Chas. Leffer & Co., Brooklyn, N. Y.
Long & Allstatter Co., Hamilton, O.
Merrill Bros., Brooklyn, N. Y.
Miner & Peck Mfg. Co., New Haven, Ct.
Morgan Engineering Co., Alliance, O.
Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

George A. Ohl & Co., Newark, N. J.
Fred J. Swaine Co., St. Louis, Mo.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Williams, White & Co., Moline, Ill.

MERCHANTS.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Marshall & Huschart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
Edgar M. Moore & Co., Pittsburgh, Pa.
Motch & Merryweather Machinery Co., Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
Vandyck-Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Hammers, Drop, for Metal Ceilings, &c.—

E. W. Bliss Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.

Ferracute Machine Co., Bridgeton, N. J.
Merrill Bros., Brooklyn, N. Y.
Morgan Engineering Co., Alliance, O.

Hammers, Electric Chipping—
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Hammers, Farriers—
Heller Bros. Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Susquehanna Casting Co., Wrightsville, Pa.

Hammers, Foot Power—
Arcade Mfg. Co., Freeport, Ill.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Hammers, Granite Work—

Trow & Holden, Barre, Vt.
Hammers, Hand Drilling—
Hubbard & Co., Pittsburgh, Pa.

Hammers, Heavy—
(See Sledges and Hammers.)

Hammers, Helve, Cushion—
C. C. Bradley & Son, Syracuse, N. Y.

Long & Allstatter Co., Hamilton, O.

Hammers, Helve, Spring—
Novelty Iron Works, Dubuque, Ia.

Hammers, Machinists—
Billings & Spencer Co., Hartford, Ct.

Heller Bros. Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Susquehanna Casting Co., Wrightsville, Pa., New York.

Hammers, Magnetic—
Arcade Mfg. Co., Freeport, Ill.

Billings & Spencer Co., Hartford, Ct.
Kilborn & Bishop Co., New Haven, Ct.

Landers, Frary & Clark, New Britain, Ct.
Northern Electrical Mfg. Co., Madison, Wis.

Arthur R. Robertson, Boston, Mass.
Stanley Rule & Level Co., New Britain, Ct.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Hammers, Masons—
Hubbard & Co., Pittsburgh, Pa.

Hammers, Meat—
(See Pounders, Steak.)

Hammers, Nail—
Columbia Grey Iron Co., Columbia, Pa.

Kilborn & Bishop Co., New Haven, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Smith & Hemenway Co., 108-110 Duane St., New York.

Susquehanna Casting Co., Wrightsville, Pa.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Wrightsville Hardware Co., Wrightsville, Pa.

Hammers, Napping—
Hubbard & Co., Pittsburgh, Pa.

Hammers, Paying—
C. C. Atkins & Co., Indianapolis, Ind.

Susquehanna Casting Co., Wrightsville, Pa.

L. & I. J. White Co., Buffalo, N. Y.

Hammers, Planishing—
Morgan Engineering Co., Alliance, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Hammers, Pneumatic—
E. W. Bliss Co., Brooklyn, N. Y.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Clayton Air Compressor Works, 114-116 Liberty St., New York.

Helwig Mfg. Co., St. Paul, Minn.
Ingersoll-Rand Co., 11 Broadway, New York.

Hammers, Power—
Beaudry & Co., Boston, Mass.
C. C. Bradley & Son, Syracuse, N. Y.
Dienelt & Eisenhardt, Inc., 1308 Howard St., Philadelphia, Pa.
E. E. Kidder, Worcester, Mass.
J. Howard Lingle Co., Bellefonte, Pa.
Long & Allstatter Co., Hamilton, O.
Merrill Bros., Brooklyn, N. Y.
Morgan Engineering Co., Alliance, O.
Niles-Bement-Pond Co., 111 Broadway, New York.
Novelty Iron Works, Dubuque, Ia.
Scranton & Co., New Haven, Ct.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Williams, White & Co., Moline, Ill.

MERCHANTS.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Marshall & Hushart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
Edgar M. Moore & Co., Pittsburgh, Pa.
Motch & Merryweather Machinery Co., Cleveland, O.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
L. F. Seyfert's Sons, Inc., 437-441 N. 3d St., Philadelphia, Pa.
Vandyck-Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Hammers, Prospecting—
Susquehanna Casting Co., Wrightsville, Pa.

Hammers, Raising—
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Hammers, Riveting—
Chester B. Albee Iron Works Co., Allegheny, Pa.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Helwig Mfg. Co., St. Paul, Minn.
Ingersoll-Rand Co., 11 Broadway, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Susquehanna Casting Co., Wrightsville, Pa.

Hammers, Rotary Riveting—
F. B. Shuster & Co., New Haven, Ct.
Williams, White & Co., Moline, Ill.

Hammers, Saddlers' and Upholsterers—
Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Kilbora & Bishop Co., New Haven, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.
Smith & Hemenway Co., 108-110 Duane St., New York.

Hammers, Setting—
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Hammers, Shoe—
Fanner Mfg. Co., Cleveland, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Louis Sacks, Newark, N. J.
Susquehanna Casting Co., Wrightsville, Pa.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
Wrightsville Hardware Co., Wrightsville, Pa.

Hammers, Slaters—
Smith & Hemenway Co., 108-110 Duane St., New York.
Susquehanna Casting Co., Wrightsville, Pa.

Hammers, Sorting—
Hubbard & Co., Pittsburgh, Pa.
Hammers, Spalling—
Hubbard & Co., Pittsburgh, Pa.

Hammers, Steak—
 (See Pounders, Steak.)

Hammers, Steam—
Alliance Machine Co., Alliance, O.
Beaudry & Co., Inc., Boston, Mass.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Buffalo Foundry & Machine Co., Buffalo, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Richard Dudgeon, 24 Columbia St., N. Y.
Chas. F. Elmes Engineering Works, 253-255 Fulton St., Chicago, Ill.
McDougall & Potter Co., 602-612 W. 55th St., New York.

Morgan Engineering Co., Alliance, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

MERCHANTS.
Baird Machinery Co., Pittsburgh, Pa.
Carlin Machinery & Supply Co., Inc., Allegheny, Pa.
Barclay M. Eyerson, Pittsburgh, Pa.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.
Edgar M. Moore & Co., Pittsburgh, Pa.
Motch & Merryweather Machinery Co., Cleveland, O.
New York Machinery Depot, 120 Broadway, New York.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
L. F. Seyfert's Sons, Inc., 437-441 No. 3d St., Philadelphia, Pa.
Vandyck-Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
C. C. Wormer Machinery Co., Detroit, Mich.

Hammers, Steam Drop—
Chambersburg Engineering Co., Chambersburg, Pa.

Hammers, Steam Helve—
Charles F. Elmes Engineering Works,
253-259 Fulton St., Chicago, Ill.
Morgan Engineering Co., Alliance, O.

Hammers, Stone—
(See Sledges and Hammers.)

Hammers, Stone Cutters'—
Ingersoll-Rand Co., 11 Broadway, New York.

Hammers, Stone, Pneumatic—
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Hammers, Striking—
Hubbard & Co., Pittsburgh, Pa.

Hammers, Tack—
Arcade Mfg. Co., Freeport, Ill.
Billings & Spencer Co., Hartford, Ct.
Columbia Grey Iron Co., Columbia, Pa.
Griswold Mfg. Co., Erie, Pa.
Kilborn & Bishop Co., New Haven, Ct.
Landers, Frary & Clark, New Britain, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Arthur R. Robertson, Boston, Mass.
Smith & Hemenway Co., 108-110 Duane St., New York.
Stanley Rule & Level Co., New Britain, Ct.
Susquehanna Casting Co., Wrightsville, Pa.

Hammers, Tinners'—
O. S. Mersick & Co., New Haven, Ct.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Hammers, Tire Welding—
Williams, White & Co., Moline, Ill.

Hammers, Trip—
Beaudry & Co., Boston, Mass.
Scranton & Co., New Haven, Ct.

Hammers, Turning—
Billings & Spencer Co., Hartford, Ct.
Heller Bros. Co., Newark, N. J.
Susquehanna Casting Co., Wrightsville, Pa.

Hammers, Upholsterers'—
(See Hammers, Saddlers' and Upholsterers'.)

Hammers, Vacuum—
Williams, White & Co., Moline, Ill.
Hammock Cords, Hooks, &c.—
(See Cords, Hooks, &c.)

Hammock Trapeze Bars—
(See Supports and Bars, Hammock.)

Hammocks—
I. E. Palmer, Middletown, Ct.

Hand Bells, &c.—
(See Bells, &c.)

Hand Carts—
(See Carts, Push.)

Hand Cuffs—
(See Police Goods.)

Hand Cuffs and Lex Irons—
Tower & Lyon Co., 95 Chambers St., New York.

Hand Hoist Carriers—
(See Carriers, Hand Hoist.)

Hand Hole Punches—
(See Punches, Hand and Tube Hole.)

Hand Rail Brackets, Screws—

(See Brackets, Screws.)

Hand Screws, Vises—
(See Screws, Vises.)

Handle Bars—
(See Bicycle Parts.)

Handles and Heads, Brace Bit—

Piqua Handle & Mfg. Co., Piqua, O.
H. A. Stiles & Co., Boston, Mass.

Handles and Locks, Store Door—

Eagle Lock Co., Terryville, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Handles, Ash Can—
(See Tinners' Trimmings.)

Handles, Auger—
W. R. Hartigan, Collinsville, Ct.
Irwin Auger Bit Co., Wilmington, O.
Millers Falls Co., 28 Warren St., N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Piqua Handle & Mfg. Co., Piqua, O.
James Swan Co., Seymour, Ct.

Handles, Auger Bit—
James Swan Co., Seymour, Ct.

Handles, Awl—
(See Handles, Chisel, File, Awl, &c.)

Handles, Axe, Pick, Sledge, &c.—

Wm. R. Hartigan, Collinsville, Ct.
Walter A. Zeinicker Supply Co., St. Louis.
Handles, Bag, Box, &c.—
R. C. Jenkinson & Co., Newark, N. J.

Handles, Balance—
J. H. Williams & Co., Brooklyn, N. Y.

Handles, Barrel, Steel—
W. J. Clark Co., Salem, O.

Handles, Basket, Wire—
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

E. H. Titchener & Co., Binghamton, N. Y.

Handles, Boiler—
(See Tinners' Trimmings.)

Handles, Broom—
American Fork & Hoe Co., Cleveland, O.

Piqua Handle & Mfg. Co., Piqua, O.

Handles, Brush, Duster, &c.—
W. R. Hartigan, Collinsville, Ct.

Piqua Handle & Mfg. Co., Piqua, O.

Handles, Can—
Otto Konigslow Mfg. Co., Cleveland, O.

Handles, Carriage Door—
Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Handles, Carving Tool—
Chapin-Stephens Co., Pine Meadow, Ct.

Piqua Handle & Mfg. Co., Piqua, O.

H. A. Stiles & Co., Boston, Mass.

Handles, Chest, Shutter, &c.—

Ney Mfg. Co., Canton, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Stanley Works, New Britain, Ct.
Susquehanna Casting Co., Wrightsville, Pa.

Taylor & Boggs Foundry Co., Cleveland.
W. & J. Tiebout, 118 Chambers St., N. Y.
Wrightsville Hardware Co., Wrightsville,
Pa.

Handles, Chisel, File, Awl.

American File Sharpener Co., 296 Broad-
way, New York.

Baker, McMillen Co., Akron, O.
Buck Bros., Millbury, Mass.
Chapin-Stephens Co., Pine Meadow, Ct.
W. R. Hartigan, Collinsville, Ct.
Nicholson File Co., Providence, R. I.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Piqua Handle & Mfg. Co., Piqua, O.
Stanley Rule & Level Co., New Britain, Ct.
H. A. Stiles & Co., Boston, Mass.
James Swan Co., Seymour, Ct.
Union Hardware Co., Torrington, Ct.

Handles, Chisel, Leather

Head—
C. E. Jennings & Co., 42 Murray St.,
New York.

Piqua Handle & Mfg. Co., Piqua, O.

Handles, Cork Screw—
W. R. Hartigan, Collinsville, Ct.
H. A. Stiles & Co., Boston, Mass.

Handles, Corn Knife—
Baker, McMillen Co., Akron, O.

Handles, Corn Popper—
(See Handles, Grass Hook, &c.)

Handles, Crank—
J. H. Williams & Co., Brooklyn, N. Y.

Handles, Crosscut Saw—
E. C. Atkins & Co., Indianapolis, Ind.
George H. Bishop & Co., Cincinnati, O.
Henry Dieston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.
Piqua Handle & Mfg. Co., Piqua, O.
Simonds Mfg. Co., Fitchburg, Mass.

Handles, Curry Comb—
Baker, McMillen Co., Akron, O.
W. R. Hartigan, Collinsville, Ct.
Piqua Handle & Mfg. Co., Piqua, O.
H. A. Stiles & Co., Boston, Mass.

Handles, Cutlery—
H. A. Stiles & Co., Boston, Mass.

Handles, Damper—
Baker, McMillen Co., Akron, O.

Handles, Detachable Tool—
Millers Falls Co., 28 Warren St., N. Y.
Nicholson File Co., Providence, R. I.

Handles, Die Stock Tub-

lar—
Standard Welding Co., Cleveland, O.

Handles, Door—
Columbia Grey Iron Co., Columbia, Pa.

Lawrence Bros., Sterling, Ill.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.

Stanley Works, New Britain, Ct.
Taylor & Boggs Foundry Co., Cleveland.

Wrightsville Hardware Co., Wrightsville,
Pa.

Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Handles, Door Bell—
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Handles, Drawer—
Otto Konigslow Mfg. Co., Cleveland, O.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.

Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Handles, Electric Switch—
H. A. Stiles & Co., Boston, Mass.

Handles, Enameled and

Plain—
Baker, McMillen Co., Akron, O.

W. R. Hartigan, Collinsville, Ct.
H. A. Stiles & Co., Boston, Mass.

Handles, File and Tool, In-

destructible—
J. L. Osgood, Buffalo, N. Y.

Handles, Floral Set—
Piqua Handle & Mfg. Co., Piqua, O.

Handles, Fork, Spade, Shov-

el. Scoop, Hoe, Rake, &c.—
American Fork & Hoe Co., Cleveland, O.

Avery Stamping Co., Cleveland, O.
Piqua Handle & Mfg. Co., Piqua, O.

Handles, Gas Taper Light-

er—
Piqua Handle & Mfg. Co., Piqua, O.

Handles, Gimlet—
W. R. Hartigan, Collinsville, Ct.

H. A. Stiles & Co., Boston, Mass.

Handles, Grass Hook, Hedge

Shear, Ice Pick, Cleaver,

Crank, Corn Knife, Corn

Popper, Trowel, &c.—
Piqua Handle & Mfg. Co., Piqua, O.

H. A. Stiles & Co., Boston, Mass.

Handles, Guard—
(See Timers' Trimmings.)

Handles, Lawn Mower—
W. R. Hartigan, Collinsville, Ct.

Piqua Handle & Mfg. Co., Piqua, O.

Handles, Hand Saw—
(See Handles, Plane and Saw.)

Handles, Ice and Cant

Hook—
Piqua Handle & Mfg. Co., Piqua, O.

Handles, Ice Chisel, Shave,

Spoon—
Piqua Handle & Mfg. Co., Piqua, O.

Handles, Incandescent

Lamp Guard—
H. A. Stiles & Co., Boston, Mass.

Handles, Knife, Wrench,

&c.—
W. R. Hartigan, Collinsville, Ct.

Piqua Handle & Mfg. Co., Piqua, O.

H. A. Stiles & Co., Boston, Mass.

Handles, Ladle—
Baker, McMillen Co., Akron, O.

Handles, Lawn Mower—
Wm. R. Hartigan, Collinsville, Ct.

Piqua Handle & Mfg. Co., Piqua, O.

Handles, Lifting—
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.

Handles, Machine—
Billings & Spencer Co., Hartford, Ct.

W. J. Clark Co., Salem, O.
Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.
Richmond Forgings Corporation, Rich-
mond, Va.

Transue & Williams Co., Alliance, O.
Whitman & Barnes Mfg. Co., Chicago,
J. H. Williams & Co., Brooklyn, N. Y.

Handles, Package and

Roll—
H. A. Stiles & Co., Boston, Mass.

Handles, Plane and Saw—
E. C. Atkins & Co., Indianapolis, Ind.
Geo. H. Bishop & Co., Cincinnati, O.
Chapin-Stephens Co., Pine Meadow, Ct.
Henry Disston & Sons, Philadelphia, Pa.
C. E. Jennings & Co., 42 Murray St., New York

National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.

Handles, Plate—
(See Kitchen Articles, Wire.)

Handles, Putty Knife—
W. R. Hartigan, Collinsville, Ct.

Handles, Rice Boiler—
Baker, McMillen Co., Akron, O.

Handles, Rubber Stamp—
Baker, McMillen Co., Akron, O.

W. R. Hartigan, Collinsville, Ct.

Handles, Sad Iron—
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Fanner Mfg. Co., Cleveland, O.
Piqua Handle & Mfg. Co., Piqua, O.
H. A. Stiles & Co., Boston, Mass.

Handles, Screw Driver—
Baker, McMillen Co., Akron, O.
Chapin-Stephens Co., Pine Meadow, Ct.
W. R. Hartigan, Collinsville, Ct.
Piqua Handle & Mfg. Co., Piqua, O.
H. A. Stiles & Co., Boston, Mass.

Handles, Screw Plate—
Standard Welding Co., Cleveland, O.

Handles, Soldering Copper—
Baker, McMillen Co., Akron, O.

Piqua Handle & Mfg. Co., Piqua, O.
H. A. Stiles & Co., Boston, Mass.

Handles, Steam Valve—
(See Wheels, Steam Valve.)

Handles, Store Door—
(See Handles and Locks, Store Door.)

Handles, Stove Door, Poker, &c.—

Andrews Wire & Iron Works, Rockford, Ill.

Handles, Tack Puller—
W. R. Hartigan, Collinsville, Ct.

Piqua Handle & Mfg. Co., Piqua, O.
H. A. Stiles & Co., Boston, Mass.

Handles, Tea and Coffee Pot—
Baker, McMillen Co., Akron, O.

H. A. Stiles & Co., Boston, Mass.

Handles, Telegraph Shovel and Spoon—

Piqua Handle & Mfg. Co., Piqua, O.

Handles, Toy Garden Set—
Piqua Handle & Mfg. Co., Piqua, O.

Handles, Trowel—
E. C. Atkins & Co., Indianapolis, Ind.

Chas. L. Stevens & Co., Detroit, Mich.
H. A. Stiles & Co., Boston, Mass.

Handles, Trunk—
Graton & Knight Mfg. Co., Worcester, Mass.

Handles, Tub—
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York

Stanley Works, New Britain, Ct.

H. A. Stiles & Co., Boston, Mass.

Handles, Wall Scraper—
H. A. Stiles & Co., Boston, Mass.

Handles, Whisk Broom—
Baker, McMillen Co., Akron, O.

Handles, Wire Basket—
Spencer Wire Co., Worcester, Mass.

Handles, Wrench—
(See Handles, Knife, Wrench.)

Handy Tongue—
(See Cleaners, Lamp Chimney.)

Wire Goods Co., Worcester, Mass.

Hanger Screws—
(See Screws, Hanger.)

Hangers, Accordion or Folding Door—

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Hangers and Rails, Suspended—
(See Rails and Hangers, Suspended.)

Hangers and Stirrups, Joist and Timber—

Belmont Iron Works, Inc., Philadelphia.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

W. J. Clark Co., Salem, O.

Grabler Mfg. Co., Cleveland, O.

Lane Bros. Co., Poughkeepsie, N. Y.

National Iron & Wire Co., Cleveland, O.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Steward & Romaine Mfg. Co., Philadelphia, Pa.

Van Dorn Iron Works Co., Cleveland, O.

Hangers, Arc Lamp—
National Sewing Machine Co., Belvidere, Ill.

Hangers, Auditorium Door—
(See Hangers, Accordion.)

Hangers, Barn Door—
Allith Mfg. Co., 122-124 S. Green St., Chicago, Ill.

Chicago Spring Butt Co., Chicago, Ill.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Griffin Mfg. Co., Erie, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

McKinney Mfg. Co., Allegheny, Pa.

S. B. Martin, Dalton, O.

F. E. Myers & Bro., Ashland, O.

National Mfg. Co., Sterling, Ill.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Safety Door Hanger Co., Ashland, O.

Taylor & Boggis Foundry Co., Cleveland.

Hangers, Barn Door.

Allith Mfg. Co., 122-124 S. Green St., Chicago, Ill.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Griffin Mfg. Co., Erie, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

- Hangers, Cable—**
Star Expansion Bolt Co., 147-149 Cedar St., New York.
- Hangers, Calendar—**
E. B. Stimpson Co., 31 Spruce St., N. Y.
- Hangers, Car Door—**
Chisholm & Moore Mfg. Co., Cleveland, O.
- McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
- Hangers, Cup and Saucer, Plate, &c.—**
Wire Goods Co., Worcester, Mass.
- Hangers, Cycle—**
(See Stands and Holders, Bicycle.)
- Hangers, Eave Trough—**
Andrews Wire & Iron Works, Rockford, Ill.
- Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- Hangers, Elevator Door—**
Chisholm & Moore Mfg. Co., Cleveland, O.
- Lane Bros. Co., Poughkeepsie, N. Y.
- McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
- McKinney Mfg. Co., Allegheny, Pa.
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Reading Hardware Co., Reading, Pa.
- Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
- Hangers, Fire Door—**
Allith Mfg. Co., 122 S. Green St., Chicago, Ill.
- Griffin Mfg. Co., Erie, Pa.
- Lane Bros. Co., Poughkeepsie, N. Y.
- Lawrence Bros., Sterling, Ill.
- McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
- F. E. Myers & Bro., Ashland, O.
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Hangers, Garment and Trousers—**
Andrews Wire & Iron Works, Rockford, Ill.
- M. S. Brooks & Sons, Chester, Ct.
- Caldwell Mfg. Co., Rochester, N. Y.
- Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
- Dufur & Co., Baltimore, Md.
- Kilbourne Mfg. Co., Troy, N. Y.
- Parker Wire Goods Co., Worcester, Mass.
- Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
- Pullman Mfg. Co., Rochester, N. Y.
- Taplin Mfg. Co., New Britain, Ct.
- Wire Goods Co., Worcester, Mass.
- Wright Wire Co., Worcester, Mass.
- Hangers, Gate—**
Griffin Mfg. Co., Erie, Pa.
- M. Lanz & Sons, Pittsburgh, Pa.
- Lawrence Bros., Sterling, Ill.
- F. E. Myers & Bro., Ashland, O.
- Hangers, House Door—**
Allith Mfg. Co., 122-124 S. Green St., Chicago, Ill.
- Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Lane Bros. Co., Poughkeepsie, N. Y.
- Lawrence Bros., Sterling, Ill.
- McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
- McKinney Mfg. Co., Allegheny, Pa.
- F. E. Myers & Bro., Ashland, O.
- National Mfg. Co., Sterling, Ill.
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
- Hangers, Paint Pot—**
Eyelet Tool Co., Boston, Mass.
- Hangers, Pipe—**
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
- Grabler Mfg. Co., Cleveland, O.
- Jenkins Bros., 71 John St., New York.
- National Tube Co., Pittsburgh, Pa.
- Hangers, Post—**
H. W. Caldwell & Son Co., Western Ave., 17th and 18th Sts., Chicago, Ill.
- Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
- Falls Rivet & Machine Co., Cuyahoga Falls, O.
- Jones & Laughlin Steel Co., Pittsburgh.
- Poole Engineering & Machine Co., Baltimore, Md.
- Hangers, Shaft—**
American Tool & Machine Co., Boston.
- Bancroft & Co., Philadelphia, Pa.
- Boston Gear Works, Norfolk Downs, Mass.
- Brown & Sharpe Mfg. Co., Providence, R. I.
- H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
- W. E. Caldwell Co., Louisville, Ky.
- Charter Gas Engine Co., Sterling, Ill.
- Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
- W. P. Davis, Machine Co., Rochester, N. Y.
- Dodge Mfg. Co., Mishawaka, Ind.
- Falls Rivet & Machine Co., Cuyahoga Falls, O.
- Hess-Snyder Co., Massillon, O.
- Humphrey Machine Co., Keene, N. H.
- Jones & Laughlin Steel Co., Pittsburgh.
- Poole Engineering & Machine Co., Baltimore, Md.
- Royersford Foundry & Machine Co., Royersford, Pa.
- T. B. Wood's Sons Co., Chambersburg, Pa.
- Hangers, Trolley Wire—**
(See Trolley Materials, Electric.)
- Hangers, Warehouse Door—**
Chisholm & Moore Mfg. Co., Cleveland.
- Griffin Mfg. Co., Erie, Pa.
- McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
- F. E. Myers & Bro., Ashland, O.
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Hangers, Window Screen and Storm Sash—**
Phenix Mfg. Co., Milwaukee, Wis.
- Stanley Works, New Britain, Ct.
- Hardeners, Belt—**
Farrel Foundry & Machine Co., Ansonia, Ct.
- Hardies, Anvil—**
Heller Bros. Co., Newark, N. J.
- Hardware, Blanket—**
(See Trimmings, Blanket.)

Hardware, Carriage and Wagon.

(See Carriage and Wagon Hardware.)

Hardware Commission Merchants.

(See Agents.)

Hardware Jobbers.

(See Jobbers, Hardware, Cutlery, &c.)

Hardware, Launch.

(See Launch, Hardware.)

Hardware, Marine.

(See Marine Hardware.)

Hardware Shelf Boxes.

(See Boxes, Shelf.)

Hardware Specialties.

(See Metal Specialties to Order.)

Hardware Store Shelving.

(See Shelving.)

Hardware, Trunk and Bag.

(See Corners, Clamps, Locks, &c.)

Harness Chains, Hooks, &c.

(See Chains, Hooks, &c.)

Harpoons.

W. & J. Tiebout, 118 Chambers St., N. Y.

Harrow Teeth.

(See Teeth.)

Harrowers.

Bateman Mfg. Co., Glenloch, N. J.

Cutaway Harrow Co., Higganum, Ct.

Keystone Farm Machine Co., York, Pa.

Long & Allstatter Co., Hamilton, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

R. W. Whitehurst & Co., Norfolk, Va.

Hasp, Latch and Staple.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Hasps and Staples.

(See Wrought Iron Goods.)

Hasps, Cellar Door.

McKinney Mfg. Co., Allegheny, Pa.

Hasps, Hinge.

Delaware Marine Supply Mfg. Co., Wilmington, Del.

Griffin Mfg. Co., Erie, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

National Mfg. Co., Sterling, Ill.

Reading Hardware Co., Reading, Pa.

Stanley Works, New Britain, Ct.

Hasps, Mail Car Door.

Delaware Marine Supply Mfg. Co., Wilmington, Del.

Hat Badges.

(See Badges and Medals.)

Hatch Doors.

(See Doors, Automatic Hatch.)

Hatchets, Combination.

Kilborn & Bishop Co., New Haven, Ct.

Hatchets, Confectioners.

Wrightsville Hardware Co., Wrightsville, Pa.

Hatchets, Ice.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Wrightsville Hardware Co., Wrightsville, Pa.

Hatchets, Rafting.

Columbia Grey Iron Co., Columbia, Pa.

Hatchets, Shingling, Half.

Columbia Grey Iron Co., Columbia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Smith & Hemenway Co., 108-110 Duane St., New York.

Susquehanna Casting Co., Wrightsville, Pa.

L. & J. White Co., Buffalo, N. Y.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Wrightsville Hardware Co., Wrightsville, Pa.

Haulage Plants.

Thos. Carlin & Sons, Allegheny, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Haulage, Wire Rope Under-ground.

Wellman-Seaver-Morgan Co., Cleveland, O.

Hauls, Log.

(See Log Hauls.)

Hauls, Mine Car.

Interstate Engineering Co., Bedford, O.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Co., Philadelphia, Pa.

Hay Fork Carriers, Pulleys.

(See Hayfork Tools, Pulleys.)

Hay Fork Fixtures.

F. E. Myers & Bro., Ashland, O.

Hay Forks.

(See Forks, Hay, Manure, Spading, &c.)

Hay Knives, Rope.

(See Knives, Rope.)

Hay Rack Fixtures.

(See Clamps, Hay Rack.)

Hay Racks.

(See Stable Fixtures.)

Haying Tools (Forks, Slings and Carriers).

F. E. Myers & Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Warsaw Elevator Co., Warsaw, N. Y.

Whitman & Barnes Mfg. Co., Chicago.

Header and Bender, Bicycle Spoke.

(See Spoke Header and Bender, Bicycle.)

Headers, Bolt.

Acme Machinery Co., Cleveland, O.

Ajax Mfg. Co., Cleveland, O.

Baird Machinery Co., Pittsburgh, Pa.

Blake & Johnson Co., Waterbury, Ct.

Boynton & Plummer, Worcester, Mass.

Asa S. Cook Co., Hartford, Ct.

E. J. Manville Machine Co., Waterbury, Ct.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

B. B. Noyes & Co., Greenfield, Mass.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Headers, Rivet.

Acme Machinery Co., Cleveland, O.

Ajax Mfg. Co., Cleveland, O.

Blake & Johnson Co., Waterbury, Ct.

Asa S. Cook, Hartford, Ct.

E. J. Manville Machine Co., Waterbury, Ct.

National Machinery Co., Tiffin, O.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Headers, Rod.

Blake & Johnson Co., Waterbury, Ct.

National Machinery Co., Tiffin, O.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Headers, Screw Blank.

E. J. Manville Machine Co., Waterbury, Ct.

Headers, Wood Screw—

Asa S. Cook Co., Hartford, Ct.

Heading and Shingle Ma-chine—
Peter Gerlich Co., Cleveland, O.

Lane Mfg. Co., Montpelier, Vt.

Novelty Iron Works, Dubuque, Ia.

Headless Bolts—

(See Bolts, Special.)

Headlight Parts—

Clark Novelty Co., Rochester, N. Y.

Heads and Liners for Gyra-tory Crushers—
Chrome Steel Works, Chrome, N. J.**Heads, Boiler—**R. Munroe & Sons Mfg. Corporation,
Pittsburgh, Pa.**Heads, Brace—**

(See Handles and Heads, Brace.)

Heads, Conductor—

Berger Bros. Co., 231-237 Arch St., Phil-

adelphia, Pa.

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.**Heads, Exhaust—**American Spiral Pipe Works, 1173-1201 S.
Paulina St., Chicago, Ill.

Boston Blower Co., Hyde Park, Mass.

Burt Mfg. Co., Akron, O.

Exeter Machine Works, Exeter, N. H.

Benj. F. Kelley & Son, 91 Liberty St.,
New York.Frank L. Patterson & Co., 26 Cortlandt
St., New York.

Pittsburgh Gage & Supply Co., Pitts-

burgh, Pa.

Pittsburgh Valve Foundry & Construction

Co., Pittsburgh, Pa.

Stirling Blower & Pipe Mfg. Co., Hart-

ford, Ct.

B. F. Sturtevant Co., Boston, Mass.

Whitlock Coil Pipe Co., Hartford, Ct.

Heads, Flanged and Dished**Boiler—**

Avery Stamping Co., Cleveland, O.

E. Keeler Co., Williamsport, Pa.

Lukens Iron & Steel Co., Coatesville, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Heads, Flanged, Barrel**Tank, &c.—**

W. J. Clark Co., Salem, O.

Heads, Indexing and Di-**viding—**Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence,

R. I.

Cincinnati Milling Machine Co., Cincin-

nati, O.

Garvin Machine Co., Spring and Varick

Sts., New York.

Pratt & Whitney Co., Hartford, Ct.

Stockbridge Machine Co., Worcester, Mass.

Heads, Kitchen Boiler, &c.—

Avery Stamping Co., Cleveland, O.

Heads, Planer—

Tindel-Morris Co., Eddystone, Pa.

Heads, Polishing—

Builders Iron Foundry, Providence, R. I.

Chandler & Farquhar Co., Boston, Mass.

Diamond Machine Co., Providence, R. I.

Goodell-Pratt Co., Greenfield, Mass.

Hanson & Van Winkle Co., Newark, N. J.

Zucker & Levett & Loeb Co., 526 W. 25th

St., New York.

Heads, Sheep Shearing—Coates Clipper Mfg. Co., Worcester,
Mass.**Heads, Tank—**

Tudor Boiler Mfg. Co., Cincinnati, O.

Heads, Working, Deep Well**Power—**

Deming Co., Salem, O.

Heads, Working Windmill,**&c.—**

Barnes Mfg. Co., Mansfield, O.

Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.

Heaters, Asphalt and Mas-**tic—**

F. H. Evans, Brooklyn, N. Y.

Heaters, Barrel—

Warsaw Elevator Co., Warsaw, N. Y.

Heaters, Car—

(See Heaters, Air, Electric.)

Heaters, Carriage—

Chicago Flexible Shaft Co., 124 La Salle

Ave., Chicago, Ill.

Heaters, Feed Water—Alberger Condenser Co., 95 Liberty St.,
New York.

American Spiral Pipe Works, 1173-1201 S.

Paulina St., Chicago, Ill.

Exeter Machine Works, Exeter, N. Y.

A. D. Granger Co., West St. Bldg., N. Y.

Green Fuel Economizer Co., Matteawan,
N. Y.Harrisburg Pipe & Pipe Bending Co.,
Harrisburg, Pa.

Harrison Safety Boiler Works, 3124 N. 17th

St., Philadelphia, Pa.

Benj. F. Kelley & Son, 91 Liberty St.,
New York.

Loew Mfg. Co., Cleveland, O.

John H. McGowan Co., Cincinnati, O.

R. Munroe & Sons Mfg. Corporation,
Pittsburgh, Pa.National Pipe Bending Co., New Haven,
Ct.

Frank L. Patterson & Co., 26 Cortlandt

St., New York.

Petroleum Iron Works Co., Sharon, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

Tudor Boiler Mfg. Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Robt. Wetherill & Co., Chester, Pa.

Whitlock Coil Pipe Co., Hartford, Ct.

MERCHANTS,

Charles Behler, 72 Trinity Pl., New York.

Central Station Improvement Co., Mo-

nadnock Block, Chicago, Ill.

Cleveland Belting & Machinery Co., Cleve-

land, O.

John Henning & Son, 1016 E. Susque-

hanna Ave., Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

Pfannmueller Engineering Co., First Na-

tional Bank Bldg., Chicago, Ill.

Frank Toomey, 127-131 No. Third St., Phil-

adelphia, Pa.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit,
Mich.**Heaters, Gas—**

L. S. Starrett Co., Athol, Mass.

Heaters, Gas, Gasoline and**Oil—**

Brown & Sharpe Mfg. Co., Providence,

R. I.

Fanner Mfg. Co., Cleveland, O.

Griswold Mfg. Co., Erie, Pa.
 Plume & Atwood Mfg. Co., Waterbury, Ct.
 Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
Heaters, Gas, Water—
 Griswold Mfg. Co., Erie, Pa.
 Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
Heaters, Glue—
 E. M. Dart Mfg. Co., Providence, R. I.
 Fox Machine Co., Grand Rapids, Mich.
 Stuart & Peterson Co., Burlington, N. J.
Heaters, Glue, Electric—
 General Electric Co., Schenectady, N. Y.
Heaters, Gravel—
 F. H. Evans, Brooklyn, N. Y.
Heaters, Hot Water—
 Hayden & Derby Mfg. Co., 85-89 Liberty St., New York.
Heaters, House—
 (See Furnaces; also Boilers.)
Heaters, Kitchen, Boiler—
 Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
Heaters, Lamp Chimney—
 W. R. Hartigan, Collinsville, Ct.
 Wire Goods Co., Worcester, Mass.
Heaters, Lamp Chimney, Wire—
 (See Household Articles, Wire.)
Heaters, Sad Iron—
 Fanner Mfg. Co., Cleveland, O.
 Griswold Mfg. Co., Erie, Pa.
 Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
Heaters, Tar—
 F. H. Evans, Brooklyn, N. Y.
Heaters, Water, for Laundries, Textile Works, &c.—
 Harrison Safety Boiler Works, 3194 17th St., Philadelphia, Pa.
Heating and Ventilating Apparatus—
 American Blower Co., Detroit, Mich.
 Bayley Mfg. Co., Milwaukee, Wis.
 Boston Blower Co., Hyde Park, Mass.
 Buffalo Forge Co., Buffalo, N. Y.
 Exeter Machine Works, Exeter, N. H.
 Green Fuel Economizer Co., Matteawan, N. Y.
 Howard & Morse, 45 Fulton St., N. Y.
 John H. McGowan Co., Cincinnati, O.
 Massachusetts Fan Co., Watertown, Mass.
 B. F. Sturtevant Co., Boston, Mass.
 Walworth Mfg. Co., Boston, Mass.
Heating and Ventilating Apparatus, Perforated Metal for—
 Erdle Perforating Co., Rochester, N. Y.
 Harrington & King Perforating Co., Chicago, Ill.
Hedge Shear Handles—
 (See Handles, Grass Hook, &c.)
Heel Chains, Plates, Stiffeners—
 (See Chains, Plates, Stiffeners.)
Heel Stock—
 (See Tap and Heel Stock.)
Heels, Shoe—
 (See Lifts, Shoe.)
Heels, Shoe, Rubber—
 Springfield Tire & Rubber Co., Springfield, O.
Heels, Spring, Motormen's—
 Barney & Berry, Springfield, Mass.

Hektograph Composition—
 (See Composition, Clay Duplicating.)
Hektographs—
 Columbia Duplicator Co., 110 Liberty St., New York.
Hide Rope—
 (See Rope, Hide.)
Hinge Hasps, Nails, Plates—
 (See Hasps, Nails, Plates.)
Hinge Machinery, Automatic—
 Baird Machine Co., Oakville, Ct.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Hinges and Hasps, Box, Crate, &c.—
 Acme Steel Goods Co., 2834-2840 Archer Ave., Chicago, Ill.
 Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
 Griffin Mfg. Co., Erie, Pa.
 McKinney Mfg. Co., Allegheny, Pa.
 Stanley Works, New Britain, Ct.
Hinges, Automobile, Carriage—
 Walter W. Woodruff & Sons Co., Mount Carmel, Ct.
Hinges, Bag, Case and Trunk—
 R. C. Jenkinson & Co., Newark, N. J.
 J. H. Sessions & Son, Bristol, Ct.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Hinges, Ball Bearing—
 Stanley Works, New Britain, Ct.
Hinges, Blind—
 Charles Parker Co., Meriden, Ct.
 Parker Wire Goods Co., Worcester, Mass.
 Reading Hardware Co., Reading, Pa.
 Stanley Works, New Britain, Ct.
 Susquehanna Casting Co., Wrightsville, Pa.
 Wire Goods Co., Worcester, Mass.
 Wrightsville Hardware Co., Wrightsville, Pa.
Hinges, Blind, Ayrning—
 Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.
Hinges, Brass—
 Arcade Mfg. Co., Freeport, Ill.
 Stanley Works, New Britain, Ct.
Hinges, Brass, Bronze, &c.—
 (See Butts and Hinges, Brass, Bronze, &c.)
Hinges, Cabinet—
 (See Cabinet Hinges.)
Hinges, Car Door—
 Delaware Marine Supply Mfg. Co., Wilmington, Del.
Hinges, Checking Spring—
 Joseph Bardsley, 147 Baxter St., N. Y.
Hinges, Fancy Box—
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Hinges, Floor Spring—
 Joseph Bardsley, 147 Baxter St., N. Y.
 Bommer Bros., Brooklyn, N. Y.
 Chicago Spring Butt Co., Chicago, Ill.
 Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.
 Shelby Spring Hinge Co., Shelby, O.
 Standard Mfg. Co., Shelby, O.
 Superior Spring Hinge Co., 123 So. Clinton St., Chicago, Ill.
Hinges, Folding Bed—
 American Tube & Stamping Co., Bridgeport, Ct.
 McKinney Mfg. Co., Allegheny, Pa.

Hinges, Foundry Flask—

Susquehanna Casting Co., Wrightsville, Pa.

Hinges, Gate—

Griffin Mfg. Co., Erie, Pa.
M. Lanz & Sons, Pittsburgh, Pa.
Charles Parker Co., Meriden, Ct.
Reading Hardware Co., Reading, Pa.
Susquehanna Casting Co., Wrightsville, Pa.
Wrightsville Hardware Co., Wrightsville, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hinges, Jamb—

Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.

Hinges, Link—

McKinney Mfg. Co., Allegheny, Pa.

Hinges, Long Chest—

Griffin Mfg. Co., Erie, Pa.
McKinney Mfg. Co., Allegheny, Pa.
Stanley Works, New Britain, Ct.

Hinges, Malleable Iron—
W. & J. Tiebout, 118 Chambers St., N. Y.

Hinges, Mirror—

Eagle Lock Co., Terryville, Ct.

Hinges, Ornamental—
(See Cabinet Hinges.)**Hinges, Pivot—**

Bommer Bros., Brooklyn, N. Y.
Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.

Hinges, Plate—

Griffin Mfg. Co., Erie, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Stanley Works, New Britain, Ct.

Hinges, Refrigerator—

Arcade Mfg. Co., Freeport, Ill.
Delaware Marine Supply Mfg. Co., Wilmington, Del.
Thomas Laughlin Co., Portland, Me.
Reading Hardware Co., Reading, Pa.
Riverside Metal Co., Riverside, N. J.
Stanley Works, New Britain, Ct.
W. & J. Tiebout, 118 Chambers St., N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Hinges, Screw Hook, Strap and Eye—

M. Lanz & Sons, Pittsburgh, Pa.
Lawrence Bros., Sterling, Ill.
McKinney Mfg. Co., Allegheny, Pa.

Hinges, Ship—

Delaware Marine Supply Mfg. Co., Wilmington, Del.

Hinges, Showcase—

(See Hinges, Spring.)

Hinges, Shutter—

Columbia Grey Iron Co., Columbia, Pa.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
Stanley Works, New Britain, Ct.
Susquehanna Casting Co., Wrightsville, Pa.
Wrightsville Hardware Co., Wrightsville, Pa.

Hinges, Spring—

Arcade Mfg. Co., Freeport, Ill.
Bommer Bros., Brooklyn, N. Y.
Chicago Spring Butt Co., Chicago, Ill.
Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.
Reading Hardware Co., Reading, Pa.

Scovill Mfg. Co., Waterbury, Ct.

Shelby Spring Hinge Co., Shelby, O.
Superior Spring Hinge Co., 123 So. Clinton St., Chicago, Ill.

Susquehanna Casting Co., Wrightsville, Pa.

Hinges, Spring, Fire Engine House Door—

Chicago Spring Butt Co., Chicago, Ill.

Hinges, Spring, Water Closet Door—

Bommer Bros., Brooklyn, N. Y.

Chicago Spring Butt Co., Chicago, Ill.

Reading Hardware Co., Reading, Pa.

Hinges, Strap and T. & C.—

Acme Steel Goods Co., 2834-2810 Archer Ave., Chicago, Ill.

Delaware Marine Supply Mfg. Co., Wilmington, Del.

Griffin Mfg. Co., Erie, Pa.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

National Mfg. Co., Sterling, Ill.

Stanley Works, New Britain, Ct.

Hinges, Strap and T. Corrugated—

Stanley Works, New Britain, Ct.

Hinges, Tail Board—

Griffin Mfg. Co., Erie, Pa.

Hinges, Trap Door—

Stanley Works, New Britain, Ct.

Hinges, Trunk—

R. C. Jenkinson & Co., Newark, N. J.

McKinney Mfg. Co., Allegheny, Pa.

National Mfg. Co., Sterling, Ill.

J. H. Sessions & Son, Bristol, Ct.

Stanley Works, New Britain, Ct.

Hinges, Wagon, End Gate—

Acme Steel Goods Co., 2834-2810 Archer Ave., Chicago, Ill.

Griffin Mfg. Co., Erie, Pa.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

National Mfg. Co., Sterling, Ill.

Hinges, Wash Tray—

McKinney Mfg. Co., Allegheny, Pa.

Stanley Works, New Britain, Ct.

Hinges, Washing Machine—

McKinney Mfg. Co., Allegheny, Pa.

Hinges, Water Closet Seat—

Reading Hardware Co., Reading, Pa.

Stanley Works, New Britain, Ct.

Hinges, Wire, Box—

F. P. Smith & Co., Sharon Hill, Pa.

Hinges, Wrought, to Order—

Griffin Mfg. Co., Erie, Pa.

National Mfg. Co., Sterling, Ill.

Hitches, Rope—

F. E. Myers & Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Steel Basket Co., Cedar Rapids, Ia.

Hitching Posts, Rings, Ropes, Weights—

(See Posts, Rings, Ropes, Weights.)

Hitching Post Rods—

Covert Mfg. Co., Troy, N. Y.

Hitching Strap Adjusters—
(See Adjusters, Hammock Rope and Hitching Strap.)**Hobbling Machines, Worm Wheel—**

Gould & Eberhardt, Newark, N. J.

Hobble Chains—

(See Chains, Hobbles.)

Hobs, Worm—
Brown & Sharp, Co., Providence, R.I.
Union Twist Drill Co., Athol, Mass.

Hods, Coal—
S. M. Howes Co., Boston, Mass.
Johnson Mfg. Co., Urbana, O.

Hods, Mortar, Brick, &c.—
W. J. Clark Co., Salem, O.

Hoe Brackets—
(See Brackets, Hoe.)

Hoe Machinery—
(See Fork, Rake and Hoe Machinery.)

Hoes, Accomac—
Hubbard & Co., Pittsburgh, Pa.

Hoes, Beet, Berry, &c.—
American Fork & Hoe Co., Cleveland, O.

Hoes, Eye—
American Fork & Hoe Co., Cleveland, O.
F. E. Kohler & Co., Canton, O.
D. & H. Scovill, Inc., Higganum, Ct.

Hoes, Garden, Field, Mortar, &c.—

American Fork & Hoe Co., Cleveland, O.
Bateman Mfg. Co., Grenloch, N. J.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
John H. Graham & Co., 115 Chambers St., New York.
F. E. Kohler & Co., Canton, O.

Hoes, Grape—
American Fork & Hoe Co., Cleveland, O.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Hoes, Grubbing—
American Fork & Hoe Co., Cleveland, O.
Bateman Mfg. Co., Grenloch, N. J.
Hubbard & Co., Pittsburgh, Pa.

Hoes, Hazel—
Hubbard & Co., Pittsburgh, Pa.

Hoes, Horse—
Bateman Mfg. Co., Grenloch, N. J.
Cutaway Harrow Co., Higganum, Ct.
Syracuse Chilled Plow Co., Syracuse, N. Y.

Hoes, Palmetto—
Hubbard & Co., Pittsburgh, Pa.

Hoes, Plantation or Planters—
(See Hoes, Eye.)

Hoes, Scuffle—
American Fork & Hoe Co., Cleveland, O.

Hoes, Street—
American Fork & Hoe Co., Cleveland, O.
Peter Gerlach Co., Cleveland, O.

Hoes, Vineyard—
Hubbard & Co., Pittsburgh, Pa.

Hoes, Weeding—
Cronk & Carrier Mfg. Co., Elmira, N. Y.
F. E. Kohler & Co., Canton, O.
Ulrich Mfg. Co., Rock Falls, Ill.

Hoes, Wheel—
Bateman Mfg. Co., Grenloch, N. J.

Hog Rings, Ringers—
(See Rings and Ringers, Hog.)

Hog Scrapers, Tonga—
(See Scrapers, Tonga.)

Hoisting Chain—
(See Chain, Crane, Cable, &c.)

Hoisting Engines—
(See Engines, Hoisting.)

Hoisting Machinery—
Automatic Machine Co., Bridgeport, Ct.
Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.
Thos. Carlin's Sons, Allegheny, Pa.
Chisholm & Moore Mfg. Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.
Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
Eastern Machinery Co., New Haven, Ct.
General Pneumatic Tool Co., Montour Falls, N. Y.

A. D. Granger Co., West St. Bldg., N. Y.
C. W. Hunt Co., West New Brighton, N. Y.

Ingersoll-Rand Co., 11 Broadway, N. Y.
Interstate Engineering Co., Bedford, O.
Jeffrey Mfg. Co., Columbus, O.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
Morgan Engineering Co., Alliance, O.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.
Pawling & Harnischfeger, Milwaukee, Wis.

Reading Crane & Hoist Works, Reading, Pa.

Robins Conveying Belt Co., Park Row Bldg., New York.

J. G. Speidel, Reading, Pa.
Warner Elevator Mfg. Co., Cincinnati, O.
Wellman-Seaver-Morgan Co., Cleveland, O.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Yale & Towne Mfg. Co., 9 Murray St., New York.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Broderick & Bascom Rope Co., St. Louis.
Irving Mfg. & Tool Co., 157 Chambers St., New York.

A. Leschen & Sons Rope Co., St. Louis.
McDowell & Co., Allegheny, Pa.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Jacob Ullman, Buffalo, N. Y.
Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Hoisting Towers—
Jeffrey Mfg. Co., Columbus, O.

Hoists, Ammunition—
Reading Crane & Hoist Works, Reading, Pa.

Hoists, Ash—
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Browning Engineering Co., Cleveland, O.
General Pneumatic Tool Co., Montour Falls, N. Y.

Interstate Engineering Co., Bedford, O.
Northern Engineering Works, Detroit, Mich.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Brick and Mortar—
Thos. Carlin's Sons, Allegheny, Pa.

General Pneumatic Tool Co., Pittsburgh, Pa.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Chain and Rope—
American Steel & Wire Co., The Hookery, Chicago, Ill.

Boston & Lockport Block Co., Boston.
 Broderick & Bascom Rope Co., St. Louis.
 Brown Hoisting Machinery Co., Cleveland.
 Browning Engineering Co., Cleveland, O.
 Chisholm & Moore Mfg. Co., Cleveland, O.
 Cleveland Crane & Car Co., Wickliffe, O.
 General Pneumatic Tool Co., Montour Falls, N. Y.

E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.

A. Leschen & Sons Rope Co., St. Louis.

Franklin Moore Co., Winsted, Ct.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Ney Mfg. Co., Canton, O.

Wm. S. Nicholls, 251 Broadway, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Reading Crane & Hoist Works, Reading, Pa.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

J. G. Speidel, Reading, Pa.

Warsaw Elevator Co., Warsaw, N. Y.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Cylinder—

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Dock—

Northern Engineering Works, Detroit, Mich.

Hoists, Electric—

Brown Hoisting Machinery Co., Cleveland, O.

Carlin Machinery & Supply Co., Allegheny, Pa.

Case Mfg. Co., Columbus, O.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Cleveland Crane & Car Co., Wickliffe, O.

Crocker-Wheeler Co., Ampere, N. J.

General Electric Co., Schenectady, N. Y.

General Pneumatic Tool Co., Montour Falls, N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Lidgerwood Mfg. Co., 96 Liberty St., New York.

Morgan Engineering Co., Alliance, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Robins Conveying Belt Co., Park Row Bldg., New York.

Wellman-Seaver-Morgan Co., Cleveland, Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Friction Drum Belt—

Northern Engineering Works, Detroit, Mich.

Hoists, Gantry—

Dodge Coal Storage Co., Hunting Park Ave. and P. & R. Ry., Philadelphia, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Gas and Gasoline—

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

Charter Gas Engine Co., Sterling, Ill.

Northern Engineering Works, Detroit, Mich.

Hoists, Hand—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Boston & Lockport Block Co., Boston.

Case Mfg. Co., Columbus, O.

Chisholm & Moore Mfg. Co., Cleveland.

Cleveland Crane & Car Co., Wickliffe, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Franklin Portable Crane & Hoist Co., Franklin, Pa.

General Pneumatic Tool Co., Montour Falls, N. Y.

Clinton E. Hobbs, Boston, Mass.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Wm. S. Nicholls, 251 Broadway, New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Reading Crane & Hoist Works, Reading, Pa.

J. G. Speidel, Reading, Pa.

Warsaw Elevator Co., Warsaw, N. Y.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Hydraulic—

Morgan Engineering Co., Alliance, O.

Hoists, Ice—

Brown Hoisting Machinery Co., Cleveland, O.

General Pneumatic Tool Co., Montour Falls, N. Y.

Northern Engineering Works, Detroit, Mich.

Reading Crane & Hoist Works, Reading, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Mine—

Jeffrey Mfg. Co., Columbus, O.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Northern Engineering Works, Detroit, Mich.

Wellman-Seaver-Morgan Co., Cleveland, O.

Hoists, Piano—

Sycamore Wagon Works, Sycamore, Ill.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Platform, Electric—

Northern Engineering Works, Detroit, Mich.

Hoists, Pneumatic—

Brown Hoisting Machinery Co., Cleveland, O.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Clayton Air Compressor Works, 114-118 Liberty St., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.

J. Gilmour, Bennett Bldg., New York.

Ingersoll-Rand Co., 11 Broadway, New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

Craig Ridgway & Son Co., Coatesville, Pa.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Whiting Foundry Equipment Co., Harvey, Ill.

Hoists, Portable—

Boston & Lockport Block Co., Boston.

Alfred Box & Co., Front & Poplar Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.

Thos. Carlin's Sons, Allegheny, Pa.

Chisholm & Moore Mfg. Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.

Franklin Portable Crane & Hoist Co., Franklin, Pa.

General Pneumatic Tool Co., Montour Falls, N. Y.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Wm. S. Nicholls, 251 Broadway, N. Y.

Northern Engineering Works, Detroit, Mich.

Reading Crane & Hoist Works, Reading, Pa.

Craig Ridgway & Son Co., Coatesville, Pa.

J. G. Speidel, Reading, Pa.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Riveter—

Cleveland Crane & Car Co., Wickliffe, O.

General Pneumatic Tool Co., Montour Falls, N. Y.

Morgan Engineering Co., Alliance, O.

Northern Engineering Works, Detroit, Mich.

Reading Crane & Hoist Works, Reading, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Screw and Spur—

Chisholm & Moore Mfg. Co., Cleveland, O.

Reading Crane & Hoist Works, Reading, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Sidewalk—

Rethlehem Foundry & Machine Co., South Bethlehem, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

Energy Elevator Co., 214 New St., Philadelphia, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Reading Crane & Hoist Works, Reading, Pa.

Sidney Elevator Mfg. Co., Sidney, O.

J. G. Speidel, Reading, Pa.

Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.

Warsaw Elevator Co., Warsaw, N. Y.

Hoists, Skip—

C. W. Hunt Co., West New Brighton, N. Y.

Morgan Engineering Co., Alliance, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Hoists, Telfer—

Dodge Coal Storage Co., Hunting Park Ave. and P. & R. Ry., Philadelphia, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Traveling, Electric—

General Pneumatic Tool Co., Montour Falls, N. Y.

Hoists, Trolley—

Alfred Box Co., Front and Poplar Sts., Philadelphia, Pa.

Brown Hoisting Machinery Co., Cleveland, O.

Case Mfg. Co., Columbus, O.

Chisholm & Moore Mfg. Co., Cleveland, O.

Cleveland Crane & Car Co., Wickliffe, O.

General Pneumatic Tool Co., Montour Falls, N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Interstate Engineering Co., Bedford, O.

Morgan Engineering Co., Alliance, O.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Pawling & Harnischfeger, Milwaukee, Wis.

Reading Crane & Hoist Works, Reading, Pa.

J. G. Speidel, Reading, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Hoists, Worm—

Jones & Laughlin Steel Co., Pittsburgh, Pa.

Holders, Bag—

W. J. Clark Co., Salem O.

Standard Scale & Supply Co., Pittsburgh, Pa.

Holders, Barn Door—

Novelty Iron Works, Sterling, Ill.

Holders, Bit Brace Die—

Butterfield & Co., Derby Line, Vt.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Whitaker Mfg. Co., Chicago, Ill.

Holders, Broom—

Raymond Mfg. Co., Corry, Pa.

Wrightsville Hardware Co., Wrightsville, Pa.

Holders, Broom, Brush.

Comb. Soap, Wire—

(See Household Articles, Wire.)

Holders, Cabinet Scraper—

Geo. H. Bishop & Co., Cincinnati, O.

Holders, Card—

Wire Goods Co., Worcester, Mass.

Holders, Card and Label—

Eagle Lock Co., Terryville, Ct.

Parker Wire Goods Co., Worcester, Mass.

Holders, Champagne Bottle.

Silver and Silver Plated—

International Silver Co., Meriden, Ct.

Holders, Christmas Tree—

North Bros. Mfg. Co., Philadelphia, Pa.

Osborn Mfg. Co., Cleveland, O.

Wrightsville Hardware Co., Wrightsville, Pa.

Holders, Copy—

Scranton & Co., New Haven, Ct.

Holders, Cuff and Napkin—
American Ring Co., Waterbury, Ct.

Holders, Die—
Brown & Sharpe Mfg. Co., Providence, R. I.

S. W. Card Mfg. Co., Mansfield, Mass.
J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Pratt & Whitney Co., Hartford, Ct.
E. F. Reece Co., Greenfield, Mass.
Wells Bros. & Co., Greenfield, Mass.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Holders, Divider Pencil—
Keuffel & Esser Co., 127 Fulton St., New York.

Holders, Door—
Joseph Bardsley, 147-151 Baxter St., N. Y.
Laidwell Mfg. Co., Rochester, N. Y.
Crucible Steel Casting Co., Lansdowne, Pa.

National Mfg. Co., Sterling, Ill.
Pullman Mfg. Co., Rochester, N. Y.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Superior Spring Hinge Co., 123 So. Clinton St., Chicago, Ill.
Wire Goods Co., Worcester, Mass.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Holders, Drill and Tap—
Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.

Chandler & Farquhar Co., Boston, Mass.
Pratt & Whitney Co., Hartford, Ct.
A. D. Quint, Hartford, Ct.
Wells Bros. Co., Greenfield, Mass.

Holders, Electric Lamp—
H. A. Stiles & Co., Boston, Mass.
Zephyr Ventilator & Mfg. Co., Inc., Wayne Junc., Philadelphia, Pa.

Holders, Electricians' Drill—
Star Expansion Bolt Co., 147-149 Cedar St., New York.

Holders, Extension Bit—
James Swan Co., Seymour, Ct.

Holders, Extension Bit and Screw Driver—

H. H. Mayhew, Shelburne Falls, Mass.
Millers Falls Co., 28 Warren St., N. Y.
Stanley Rule & Level Co., New Britain, Ct.

Holders, Eye Glass—
American Ring Co., Waterbury, Ct.

Holders, Flag Pole—
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Holders, Floating Tool—
Cleveland Twist Drill Co., Cleveland, O.

Holders, Gas—
Petroleum Iron Works Co., Sharon, Pa.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Holders, Hose—
(See Hose Attachments.)

Holders, Hose Nozzle—
Specialty Mfg. Co., St. Anthony Park, Minn.

Holders, Key—
Ames Sword Co., Chicopee, Mass.

Holders, Letter, Office, &c.—
Cur & Co., Baltimore, Md.

Holders, Match and Match Box—

Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Tuplin Mfg. Co., New Britain, Ct.
Wrightsville Hardware Co., Wrightsville, Pa.

Holders, Micrometer—
Chandler & Farquhar Co., Boston, Mass.

Holders, Mutton—
Landers, Frary & Clark, New Britain, Ct.

Holders, Nipple—
Curtis & Curtis Co., Bridgeport, Ct.
Walworth Mfg. Co., Boston, Mass.

Holders, Oil Stone—
Pike Mfg. Co., Pike, N. H.

Holders, Pencil—
American Ring Co., Waterbury, Ct.

Holders, Photograph—
Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

Holders, Planer Tool—
Powell Tool Co., Worcester, Mass.

Holders, Plate, Cup and Saucer—

Andrews Wire & Iron Works, Rockford, Ill.
Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

Holders, Reamer—
Billings & Spencer Co., Hartford, Ct.

Holders, Rein. Dash—
Fernald Mfg. Co., North East, Pa.

Holders, Reversing Tap—
Geometric Tool Co., New Haven, Ct.

Holders, Sample—
W. C. Heller & Co., Montpelier, O.
Smith & Hemenway Co., 108-110 Duane St., New York.

Holders, Sand Paper—
Tower & Lyon Co., 95 Chambers St., N. Y.

Holders, Sash—
Automatic Sash Holder Co., 277 Broadway, New York.

Holders, Soap—
(See Household Articles.)

Holders, Spoon, Cheese, &c.—
Silver and Silver Plated—

International Silver Co., Meriden, Ct.

Holders, Stake, Wagon—
Griffin Mfg. Co., Erie, Pa.

Holders, Stirrer—
Stanley Works, New Britain, Ct.

Joseph Dixon Crucible Co., Jersey City, N. J.

Holders, Test Tube—
United States Clothes Pin Co., Montpelier, Vt.

Holders, Tire Bolt—
Wiley & Russell Mfg. Co., Greenfield, Mass.

Holders, Toilet Paper—
Fanner Mfg. Co., Cleveland, O.

Holders, Tool—
Shelby Spring Hinge Co., Shelby, O.

Holders, Tool—
Armstrong Bros. Tool Co., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.
Cleveland Twist Drill Co., Cleveland, O.

Goodell-Pratt Co., Greenfield, Mass.
Keystone Mfg. Co., Hialeah, N. Y.

O. K. Tool Holder Co., Shelton, Ct.
Pratt & Whitney Co., Hartford, Ct.

Western Tool & Mfg. Co., Springfield, O.

Holders, Trace—
Fernald Mfg. Co., North East, Pa.

Holders, Tumbler—
Erie Specialty Co., Erie, Pa.

Holders, Turret Tool—
Cleveland Twist Drill Co., Cleveland, O.

Holders, Twine—
John Chatillon & Sons, 85 Cliff St., N. Y.
Parker Wire Goods Co., Worcester, Mass.

Hollow Augers, Drills, &c.—
(See Augers, Drills, &c.)

Hollow Handle Tool Sets—
(See Sets, Tool, Hollow Handle.)

Hollow Ware—
(See Ware, Hollow, Silver Plated, Steel, &c.)

Hones, Carborundum—
Carborundum Co., Niagara Falls, N. Y.

Hones, Emery and Corundum—

American Emery Wheel Works, Providence, R. I.
Sterling Emery Wheel Mfg. Co., Tiffin, O.

Hones, Razor—
American Emery Wheel Works, Providence, R. I.

Pike Mfg. Co., Pike, N. H.

Hoods, Automobile—
(See Automobile Hoods.)

Hoof Knives—
(See Knives, Farriers')

Hook and Eye Machinery—
Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.
E. J. Manville Machine Co., Waterbury, Ct.

A. H. Nilson Mach. Co., Bridgeport, Ct.

Hook Head Bolts—
(See Bolts, Special.)

Hook Plates, Steel—
(See Plates, Pipe Hook, Steel.)

Hooks and Eyes, Brass and Steel—

M. S. Brooks & Sons, Chester, Ct.
Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Hooks and Eyes, Screw—
(See Wire Goods, Bright.)

Hooks and Staples, Wire—
Wire Goods Co., Worcester, Mass.

Hooks and Thimbles—
Broderick & Bascom Rope Co., St. Louis.

Covert Mfg. Co., Troy, N. Y.

M. Lanz & Sons, Pittsburgh, Pa.

Thomas Laughlin Co., Portland, Me.

A. Leschen & Sons Rope Co., St. Louis.

W. & J. Tiebout, 118 Chambers St., New York.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Hooks, Asbestos Covered—
E. B. Stimpson Co., 31 Spruce St., N. Y.

Hooks, Awning—
Thomas Laughlin Co., Portland, Me.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

W. & J. Tiebout, 118 Chambers St., New York.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Hooks, Back Band—
(See Buckles, Back Band.)

Hooks, Bale, Box, Hog-head, &c.—
Thomas Laughlin Co., Portland, Me.

W. & J. Tiebout, 118 Chambers St., New York.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Hooks, Belt—
Billings & Spencer Co., Hartford, Ct.

Bristol Co., Waterbury, Ct.

Flexible Steel Lacing Co., 17 W. Jackson Boulevard, Chicago, Ill.

John H. Graham & Co., 113 Chambers St., New York.

E. Jenckes Mfg. Co., Pawtucket, R. I.

Morgan Spring Co., Worcester, Mass.

Parker Wire Goods Co., Worcester, Mass.

F. P. Smith & Co., Sharon Hill, Pa.

E. B. Stimpson Co., 31 Spruce St., N. Y.

W. O. Talcott, Providence, R. I.

Upson Nut Co., Cleveland, O.

Wire Goods Co., Worcester, Mass.

(See also Fasteners, Belt.)

Hooks, Bench—
(See Stops, Bench.)

Hooks, Bicycle Store—
Wire Goods Co., Worcester, Mass.

Hooks, Bird Cage—
Columbia Grey Iron Co., Columbia, Pa.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Killbourne Mfg. Co., Troy, N. Y.

Landers, Frary & Clark, New Britain, Ct.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Turner & Staunton Co., Norwich, Ct.

Wire Goods Co., Worcester, Mass.

Hooks, Boat—
Thomas Laughlin Co., Portland, Me.

W. & J. Tiebout, 118 Chambers St., New York.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Hooks, Box, Cotton and Hay—
Kraeuter & Co., Inc., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Hooks, Brine—
Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Hooks, Bush—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Hooks, Button—
Louis Sacks, Newark, N. J.

Hooks, Cabin Door—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Hooks, Cant—
Boston & Lockport Block Co., Boston.

Peter Gerlach Co., Cleveland, O.

Keystone Drop Forge Works, Chester, Pa.

Hooks, Ceiling—
(See Hooks, Chandelier or Lamp.)

Hooks, Chain—
Case Mfg. Co., Columbus, O.

Keystone Drop Forge Works, Chester, Pa.

Thomas Laughlin Co., Portland, Me.

Standard Chain Co., Pittsburgh, Pa.

Trow & Holden, Barre, Vt.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

J. H. Williams & Co., Brooklyn, N. Y.
Hooks, Chandelier or Lamp—

Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
Landers, Frary & Clark, New Britain, Ct.
National Tube Co., Pittsburgh, Pa.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Wire Goods Co., Worcester, Mass.

Hooks, Clam—
American Fork & Hoe Co., Cleveland, O.

Hooks, Clothes Line—
Columbia Grey Iron Co., Columbia, Pa.
Landers, Frary & Clark, New Britain, Ct.
Thomas Laughlin Co., Portland, Me.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Susquehanna Casting Co., Wrightsville, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Wire Goods Co., Worcester, Mass.

Hooks, Coat, Hat, &c.—

Arcade Mfg. Co., Freeport, Ill.
Atlas Mfg. Co., New Haven, Ct.
John H. Graham & Co., 113 Chambers St., New York.

E. Jenckes Mfg. Co., Pawtucket, R. I.
Landers, Frary & Clark, New Britain, Ct.
Lawrence Bros., Sterling, Ill.

National Mfg. Co., Sterling, Ill.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Raymond Mfg. Co., Corry, Pa.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.
Susquehanna Casting Co., Wrightsville, Pa.

Taylor & Boggis Foundry Co., Cleveland, O.

W. & J. Tiebout, 118 Chambers St., N. Y.
Turner & Stanton Co., Norwich, Ct.

Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Hooks, Conductor Pipe—
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Iwan Bros., Streator, Ill.

Hooks, Convex—
(See Hooks and Eyes, Brass.)

Hooks, Corn and Tobacco—
American Fork & Hoe Co., Cleveland, O.
Goodell Co., Antrim, N. H.

John H. Graham & Co., 113 Chambers St., New York.

National Saw Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Hooks, Cup and Shoulder—
E. Jenckes Mfg. Co., Pawtucket, R. I.
Landers, Frary & Clark, New Britain, Ct.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Spencer Wire Co., Worcester, Mass.

W. & J. Tiebout, 118 Chambers St., N. Y.

Turner & Stanton Co., Norwich, Ct.

Wire Goods Co., Worcester, Mass.

Hooks, Curtain Rod—
Parker Wire Goods Co., Worcester, Mass.

Hooks, Desk, Mirror, Telegraph, Tassel, Brush, Duster, Kitchen, &c.—

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Hooks, Drive—
M. Lanz & Sons, Pittsburgh, Pa.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Hooks, S and S—
Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.

East Bangor Mfg. Co., Bangor, Pa.

Parker Wire Goods Co., Worcester, Mass.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Smith & Egge Mfg. Co., Bridgeport, Ct.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wire Goods Co., Worcester, Mass.

Hooks, Fire Pail—
Parker Wire Goods Co., Worcester, Mass.

Reading Hardware Co., Reading, Pa.

Wire Goods Co., Worcester, Mass.

Hooks, Floor Pulley—
M. Lanz & Sons, Pittsburgh, Pa.

F. E. Myers & Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Hooks, Gaff Tonsail—
Thomas Laughlin Co., Portland, Me.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Hooks, Gate and Door—
Covert Mfg. Co., Troy, N. Y.

Landers, Frary & Clark, New Britain, Ct.

M. Lanz & Sons, Pittsburgh, Pa.

National Mfg. Co., Sterling, Ill.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Wire Goods Co., Worcester, Mass.

Hooks, Grass—
Cronk & Carrier Mfg. Co., Elmira, N. Y.

Alfred Field & Co., 93 Chambers St., N. Y.

John H. Graham & Co., 113 Chambers St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Hooks, Hammer—
Arcade Mfg. Co., Freeport, Ill.

Keystone Drop Forge Works, Chester, Pa.

Landers, Frary & Clark, New Britain, Ct.

I. E. Palmer, Middletown, Ct.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Susquehanna Casting Co., Wrightsville, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wire Goods Co., Worcester, Mass.

Hooks, Harness—
Arcade Mfg. Co., Freeport, Ill.
Billings & Spencer Co., Hartford, Ct.
H. Cheney & Son, Manlius, N. Y.
Lawrence Bros., Sterling, Ill.
Ney Mfg. Co., Canton, O.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
Stewart Iron Works Co., Cincinnati, O.
Susquehanna Casting Co., Wrightsville, Pa.
Hooks, Harness, Snap—
Covert Mfg. Co., Troy, N. Y.
Hooks, Hasps and Staples—
(See Wrought Iron Goods.)
Hooks, Hog—
John Chatillon & Sons, 85 Cliff St., N. Y.
Hooks, Hoist and Crane—
Case Mfg. Co., Columbus, O.
Keystone Drop Forge Works, Chester, Pa.
J. H. Williams & Co., Brooklyn, N. Y.
Hooks, Hot—
American Fork & Hoe Co., Cleveland, O.
Hooks, Ice—
(See Ice Harvesting Tools.)
Hooks, Jamb—
M. Lanz & Sons, Pittsburgh, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Hooks, Ladder—
Boston Bolt Co., Boston, Mass.
Hooks, Lantern, Safety—
Wire Goods Co., Worcester, Mass.
Hooks, Log and Switch Chain—
Standard Chain Co., Pittsburgh, Pa.
Hooks, Latch or Sister—
Thomas Laughlin Co., Portland, Me.
Hooks, Meat—
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.
Crabier Mfg. Co., Cleveland, O.
Landers, Frary & Clark, New Britain, Ct.
Parker Wire Goods Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
Wire Goods Co., Worcester, Mass.
Hooks, Mirror—
Wire Goods Co., Worcester, Mass.
Hooks, Molding—
(See Hooks, Picture Molding.)
Hooks, Overhead Carrying Track—
Broderick & Bascom Rope Co., St. Louis.
A. Leschen & Sons Rope Co., St. Louis.
F. E. Myers & Bro., Ashland, O.
Hooks, Painters' Ladder—
Wire Goods Co., Worcester, Mass.
Hooks, Picture—
Wire Goods Co., Worcester, Mass.
Hooks, Picture Molding—
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
John A. Peckham, New Haven, Ct.
Turner & Stanton Co., Norwich, Ct.
Wire Goods Co., Worcester, Mass.
Hooks, Pipe—
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Boston Bolt Co., Boston, Mass.
Crabier Mfg. Co., Cleveland, O.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Hooks, Potato, Manure, &c.—
American Fork & Hoe Co., Cleveland, O.
Hooks, Punch Bowl—
Turner & Stanton Co., Norwich, Ct.
Hooks, Sap Spout—
Parker Wire Goods Co., Worcester, Mass.
Hooks, Screw Wire—
(See Wire Goods, Bright.)
Hooks, Shackles—
Keystone Drop Forge Works, Chester, Pa.
Hooks, Shoe—
E. B. Stimpson Co., 31 Spruce St., N. Y.
Hooks, Staple, &c.—
(See Wrought Iron Goods.)
Hooks, Store Rack—
Reading Hardware Co., Reading, Pa.
Hooks, Strap—
Parker Wire Goods Co., Worcester, Mass.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Wire Goods Co., Worcester, Mass.
Hooks, Tassel—
Turner & Stanton Co., Norwich, Ct.
Wire Goods Co., Worcester, Mass.
Hooks, Telegraph—
Parker Wire Goods Co., Worcester, Mass.
Hooks, Ticket—
Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.
Hooks, Timber Carrying—
Peter Gerlach Co., Cleveland, O.
Hooks, Toilet and Towel—
Reading Hardware Co., Reading, Pa.
Yale & Towne Mfg. Co., 9 Murray St., New York.
Hooks, Weeding—
Smith & Hemenway Co., 108-110 Duane St., New York.
Hooks, Well Wheel—
Reading Hardware Co., Reading, Pa.
Hoop Brass—
(See Brass.)
Hoop Fasteners—
(See Staples, Cooperage.)
Hoops and Bands—
Carnegie Steel Co., Pittsburgh, Pa.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Pittsburgh Steel Co., Pittsburgh, Pa.
West Leechburg Steel Co., Pittsburgh, Pa.
MERCANTILE
Bourne-Fuller Co., Cleveland, O.
Cabeen & Co., Arcade Bldg., Philadelphia, Pa.
General Supply-Iron-Steel & Rail Co., Cincinnati, O.
C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.
Ogden & Wallace, 577 Greenwich St., New York.
Pierson & Co., 29 Broadway, New York.
Horace T. Potts & Co., 316 N. 3d St., Philadelphia, Pa.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.
Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.
Woodward, Wight & Co., Ltd., New Orleans, La.
Hoops and Bands, Galvanized—
(See Galvanized Angles, Bars, &c.)
Hoops for Slack Barrel Cooperage—
Carnegie Steel Co., Pittsburgh, Pa.

Hoops, Mast—
W. & J. Tiebout, 118 Chambers St., N. Y.

Hoops, Tub—
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Hoops, Wire, Barrel and Keg—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Hoppers, Coal and Gas Producer—
American Furnace & Machine Co., Pittsburgh, Pa.

Hoppers, Slop—
R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Hoppers, Slop—
(See Sinks, Slop.)

Horns, Shoe—
International Silver Co., Meriden, Ct.

Horse Brushes, Clippers, &c.—
(See Brushes, Clippers, &c.)

Horse Clipping Shears—
(See Shears, Roaching.)

Horse Hay Forks—
(See Haying Tools.)

Horse Powers—
Thomas Carlin's Sons, Allegheny, Pa.

Horse Shoes—
F. E. Myers & Bro., Ashland, O.

Horse Shoes—
(See Shoes, Horse and Mule.)

Horse Ties—
(See Ties, Cattle and Horse.)

Horse Tooth Raps—
(See Raps, Horse Tooth.)

Horseshoe Iron—
(See Iron, Horseshoe.)

Horseshoe Machinery—
E. W. Bliss Co., Brooklyn, N. Y.

Horseshoers' Vises—
(See Vises, Horseshoers'.)

Hose, Air Brake and Signal—
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose, Air Tool—
Clayton Air Compressor Works, 114-118 Liberty St., New York.

Hose, Air Tool—
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose Attachments (Menders, Couplings, Bands, Holders, Reducers, Clamps, Caps, &c.)—
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Hose, Car Heating—
W. J. Clark Co., Salem, O.

Hose, Car Heating—
Globe Machine & Stamping Co., Cleveland, O.

Hose, Car Heating—
Grabler Mfg. Co., Cleveland, O.

Hose, Car Heating—
John H. Graham & Co., 113 Chambers St., New York.

Hose, Car Heating—
Helwig Mfg. Co., St. Paul, Minn.

Hose, Car Heating—
Ingersoll-Rand Co., 11 Broadway, N. Y.

Hose, Car Heating—
F. E. Kohler & Co., Canton, O.

Hose, Car Heating—
Osborn Mfg. Co., Cleveland, O.

Hose, Car Heating—
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose, Fire—
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose, Garden—
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose Nozzle Holders—
(See Holders, Hose Nozzle.)

Hose Reels—
(See Reels, Hose.)

Hose, Steam—
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hose, Suction—
New York Belting & Packing Co., 91-93 Chambers St., New York.

Hospitals, Portable—
Portable Construction Co., 16 So. William St., New York.

Hot House Pulleys—
(See Pulleys, Hot House.)

Hot Plates, Gas—
(See Plates, Hot Gas.)

Hotel and Restaurant Cooking Apparatus (Stock Boilers, Roasting Ovens, Vegetable Boilers and Steamers, Oyster Stewers, Furnace and Caldron, &c.)—
Lalanc & Grosjean Mfg. Co., 299 Broadway, New York.

Hotel Ware, Silver Plated—
International Silver Co., Meriden, Ct.

House Heaters—
(See Furnaces.)

House Wreckers—
(See Wreckers, House.)

Household Articles, Wire (Dish Covers, Easels, Plate Handlers, Lamp Chimney Heaters, Broom Holders, Brush and Comb Holders, Soap Holders, Table Mats, Meat Rests, Shirt Rests, Stove Pipe Shelves, Soap Brackets, Tea and Coffee Pot Stands, Tea and Coffee Pot Strainers, &c.)—
Andrews Wire & Iron Works, Rockford, Ill.

Household Articles, Wire (Dish Covers, Easels, Plate Handlers, Lamp Chimney Heaters, Broom Holders, Brush and Comb Holders, Soap Holders, Table Mats, Meat Rests, Shirt Rests, Stove Pipe Shelves, Soap Brackets, Tea and Coffee Pot Stands, Tea and Coffee Pot Strainers, &c.)—
Edwards Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Household Articles, Wire (Dish Covers, Easels, Plate Handlers, Lamp Chimney Heaters, Broom Holders, Brush and Comb Holders, Soap Holders, Table Mats, Meat Rests, Shirt Rests, Stove Pipe Shelves, Soap Brackets, Tea and Coffee Pot Stands, Tea and Coffee Pot Strainers, &c.)—
Dufur & Co., Baltimore, Md.

Household Articles, Wire (Dish Covers, Easels, Plate Handlers, Lamp Chimney Heaters, Broom Holders, Brush and Comb Holders, Soap Holders, Table Mats, Meat Rests, Shirt Rests, Stove Pipe Shelves, Soap Brackets, Tea and Coffee Pot Stands, Tea and Coffee Pot Strainers, &c.)—
Kilbourne Mfg. Co., Troy, N. Y.

Household Articles, Wire (Dish Covers, Easels, Plate Handlers, Lamp Chimney Heaters, Broom Holders, Brush and Comb Holders, Soap Holders, Table Mats, Meat Rests, Shirt Rests, Stove Pipe Shelves, Soap Brackets, Tea and Coffee Pot Stands, Tea and Coffee Pot Strainers, &c.)—
Parker Wire Goods Co., Worcester, Mass.

Household Articles, Wire (Dish Covers, Easels, Plate Handlers, Lamp Chimney Heaters, Broom Holders, Brush and Comb Holders, Soap Holders, Table Mats, Meat Rests, Shirt Rests, Stove Pipe Shelves, Soap Brackets, Tea and Coffee Pot Stands, Tea and Coffee Pot Strainers, &c.)—
Wire Goods Co., Worcester, Mass.

Houses, Knock Down—
(See Houses, Churches, Hospitals, Stations, Portable.)

Houses, Portable—
Phenix Mfg. Co., Milwaukee, Wis.

Houses, Portable—
Portable Construction Co., 16 So. William St., New York.

Houses, Smoke, Sectional—
Bernard Gloekler Co., Pittsburgh, Pa.

Houses, Wire Summer—
Dufur & Co., Baltimore, Md.

Houses, Wire Summer—
Eastey Wire Works Co., 59 Fulton St., New York.

Houses, Wire Summer—
Ludlow-Saylor Wire Co., St. Louis, Mo.

Hub Boring Machines—
Niles-Bement-Pond Co., 111 Broadway, New York.

Hub Boring Machines—
Silver Mfg. Co., Salem, O.

Hub Machines, Bicycle—
Garvin Machine Co., Spring and Varick Sts., New York.

Hubs, Bicycle—
John H. Graham & Co., 113 Chambers St., New York.

Hubs, Bicycle—
John R. Keim Mills, Inc., Buffalo, N. Y.

Hubs, Child's Vehicle Wheels—

E. R. Wagner Mfg. Co., North Milwaukee, Wis.

Hubs, Steel Automobile—

John R. Keim Mills, Inc., Buffalo, N. Y.
Richmond Forgings Corporation, Richmond, Va.

Hulls and Barges, Steel—

(See Barges and Hulls.)

Huskers, Pins and Gloves—

John H. Graham & Co., 113 Chambers St., New York.

Hydrant Chain—

(See Chain, Hydrant.)

Hydrants and Street Washers—

Deming Co., Salem, O.
Dimmick Pipe Co., Birmingham, Ala.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphreys Mfg. Co., Mansfield, O.
Kennedy Valve Mfg. Co., 57 Beekman St., New York.
J. Howard Lingle Co., Bellefonte, Pa.
Lynchburg Foundry Co., Lynchburg, Va.
Mast, Fos & Co., Springfield, O.
F. E. Myers & Bro., Ashland, O.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Hydraulic Accumulators.

Cranes, &c.—

(See Accumulators, Cranes, &c.)

Hydraulic Machinery—

Bethlehem Steel Co., So. Bethlehem, Pa.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
Chambersburg Engineering Co., Chambersburg, Pa.
Richard Dudgeon, 24-26 Columbia St., New York.
C. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
John H. McGowan Co., Cincinnati, O.
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Morgan Engineering Co., Alliance, O.
Niles-Bement-Pond Co., 111 Broadway, New York.
Pennsylvania Engineering Works, New Castle, Pa.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.
Poole Engineering & Machine Co., Baltimore, Md.
S. R. Smythe Co., Pittsburgh, Pa.
United Engineering & Foundry Co., Pittsburgh, Pa.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Watson-Stillman Co., 26 Cortlandt St., New York.
Wellman-Seaver-Morgan Co., Cleveland, O.
Williams, White & Co., Inc., Moline, Ill.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Marshall & Huschert Machinery Co., 62 S. Canal St., Chicago, Ill.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

C. O. Wormer Machinery Co., Detroit, Mich.

Hydro-Carbon Lamps—

(See Lamps, Gasoline (Gas).)

Hydrometers—

American Steam Gauge & Valve Co., Boston, Mass.

Biggs & Bros., 310 Market St., Philadelphia, Pa.

Ice Axes, Bars, &c.—

(See Axes, Bars, &c.)

Ice Bowls—

(See Bowls, Silver (Plated).)

Ice Chests—

(See Refrigerators and Ice Chests.)

Ice Cream Packing Cases—

(See Cans, Ice Cream Packing.)

Ice Cutting Machines—

C. E. Jennings & Co., 42 Murray St., New York.

Ice Harvesting Tools

(Augers, Breakers, Chisels, Forks, Bars, Grapplers, Hooks, Markers, Measuring Irons, Planes, Plovers, House and Car Runs, Saws, Shavers, Scrapers, Adzes and Scoop Nets.)

American Fork & Hoe Co., Cleveland, O.

Barney & Berry, Springfield, Mass.

Peter Gerlach Co., Cleveland, O.

Gifford-Wood Co., Arlington, Mass.

L. & I. J. White Co., Buffalo, N. Y.

Ice Making Machinery—

Vilter Mfg. Co., Milwaukee, Wis.

Ice Pick Handles—

(See Handles, Grass Hook, &c.)

Igniters, Gas and Gasoline

Engine—

Metal Specialties Mfg. Co., Chicago, Ill.

Implements, Agricultural

and Garden—

(See Agricultural Implements.)

Implements, Gun—

(See Gun Implements.)

Importers, Hardware and

Cutlery—

Hermann Boker & Co., 101 Duane St., New York.

Burditt & Williams Co., Boston, Mass.

Alfred Field & Co., 93 Chambers St., New York.

Smith & Hemenway Co., 108-110 Duane St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Importers, Iron and Steel—

Reed F. Blair & Co., Pittsburgh, Pa.

Arthur C. Harvey Co., Boston, Mass.

B. M. Jones & Co., Inc., Boston, Mass.

A. Milne & Co., 1 Broadway, New York.

J. J. Mohr, Bullitt Bldg., Philadelphia.

Edgar M. Moore & Co., Pittsburgh, Pa.

Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Pilling & Crane, Girard Bldg., Philadelphia.

Horace T. Potts & Co., 38 N. 3d St., Philadelphia, Pa.

Thos. Prosser & Son, 26 Platt St., N. Y.

- Rogers, Brown & Co., Cincinnati, O.
 Frank Samuel, Harrison Bldg., Philadelphia, Pa.
 Scully Steel & Iron Co., 69 No. Halsted St., Chicago, Ill.
 Chas. G. Shepard, Buffalo, N. Y.
 Swedish Iron & Steel Corporation, 16 Exchange Place, New York.
 C. Tennant Sons & Co., 76 William St., New York.
 Wheelock, Lovejoy & Co., 23 Cliff St., New York.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Incandescent Lamps—
 (See Lamps, Incandescent.)
Inclinometers—
 L. S. Starrett Co., Athol, Mass.
Index Plates For Gear Cutting—
 Brown & Sharpe Mfg. Co., Providence, R. I.
Index Plates For Milling Machines—
 Brown & Sharpe Mfg. Co., Providence, R. I.
Indexing Heads—
 (See Heads, Indexing and Dividing.)
Indian Clubs—
 (See Clubs, Indian.)
Indicator, Bath, for Machine Testing—
 Norton Grinding Co., Worcester, Mass.
Indicator Posts for Valves—
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Indicators, Center—
 J. T. Slocumb Co., Providence, R. I.
Indicators for Machine Testing—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
Indicators, Gas Engine—
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Indicators, Speed—
 American Steam Gauge & Valve Co., Boston, Mass.
 Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.
 Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 Henry Disston & Sons, Philadelphia, Pa.
 W. N. Durant Co., Milwaukee, Wis.
 Schuchardt & Schutte, 136 Liberty St., New York.
 Simonds Mfg. Co., Fitchburg, Mass.
 L. S. Starrett Co., Athol, Mass.
 Veeder Mfg. Co., Hartford, Ct.
 Weston Electrical Instrument Co., New-ark, N. J.
 R. Woodman Mfg. & Supply Co., Boston.
 Zucker & Levett & Loeb Co., 536-538 W. 25th St., New York.
Indicators, Speed Record- ing—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.
 W. N. Durant Co., Milwaukee, Wis.
Indicators, Steam Engine—
 American Steam Gauge & Valve Co., Boston, Mass.
 Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.
 Ashton Valve Co., Boston, Mass.
 Crosby Steam Gauge & Valve Co., Boston.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Industrial Railway Equip- ment—
 (See Railways for Industrial Purposes.)
Ingot Extractors—
 United Engineering & Foundry Co., Pittsburgh, Pa.
Ingot, Bronze—
 Riverside Metal Co., Riverside, N. J.
Ingot, Manganese Bronze—
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Paul S. Reeves & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
Ingot, Phosphor Bronze—
 Phosphor-Bronze Smelting Co., 2200 Wash- ington Ave., Philadelphia, Pa.
 Paul S. Reeves & Son, Philadelphia, Pa.
 Riverside Metal Co., Riverside, N. J.
Ingot, Steel—
 Andrews Steel Co., Newport, Ky.
 Bethlehem Steel Co., So. Bethlehem, Pa.
 Carnegie Steel Co., Pittsburgh, Pa.
 National Foundry Co., Erie, Pa.
 Thomas Prosser & Son, 26 Platt St., N.Y.
Injectors, Automobile—
 Lukenheimer Co., Cincinnati, O.
Injectors, Boiler—
 Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
 Hancock Inspirator Co., 85-89 Liberty St., New York.
 Hayden & Derby Mfg. Co., 85-89 Liberty St., New York.
 Jenkins Bros., 71 John St., New York.
 Lunkenheimer Co., Cincinnati, O.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Wm. Powell Co., Cincinnati, O.
Inks, Drawing—
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Inkstands—
 (See Stationers' Hardware.)
Inkstands, Silver Plated—
 (See Desk Specialties.)
Insect Powder Guns—
 (See Guns, Insect Powder.)
Inspectors' Scales, Leather—
 (See Scales, Leather Inspectors.)
Inspirators—
 (See Injectors, Boiler.)
Instruments, Drawing—
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 L. S. Starrett Co., Athol, Mass.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Instruments, Electric Test- ing—
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pitts- burgh, Pa.
 Weston Electrical Instrument Co., New- ark, N. J.
Instruments, Engineers—
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Instruments, Forestry—
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Instruments, Leveling and Squaring—
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 L. S. Starrett Co., Athol, Mass.
Instruments, Mathematical—
 Keuffel & Esser Co., 127 Fulton St., N. Y.

Instruments, Nautical—

Keuffel & Esser Co., 127 Fulton St., N. Y.
Riggs & Bro., 310 Market St., Philadelphia, Pa.

Instruments, Surveying—

Keuffel & Esser Co., 127 Fulton St., N. Y.
Insulating Machinery for Wire—

Farrel Foundry & Mach. Co., Ansonia, Ct.
Insulating Materials—
Samuel Cabot, Boston, Mass.

Insulating Supplies, Electric—
General Electric Co., Schenectady, N. Y.

Insulators, Electric—
Stanley G. Flagg & Co., 424 No. 19th St., Philadelphia, Pa.

Insulators, Expansion—
(See Pins, Insulator Expansion.)

Insulators, Trolley—
Billings & Spencer Co., Hartford, Ct.
General Electric Co., Schenectady, N. Y.

Intensifiers, Steam, Hydraulic—
Mesta Machine Co., Pittsburgh, Pa.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Intercoolers, Air—
American Well Works, Aurora, Ill.
Ingersoll-Rand Co., 11 Broadway, New York.

Interfering Boots—
(See Boots, Interfering.)

Involute Wrenches—
(See Wrenches, Pipe.)

Iron and Brass Studs—
(See Studs, Brass and Iron.)

Iron and Steel, Brokers and Merchants—
Birdsboro Iron & Steel Breaking Co., Ltd., Birdsboro, Pa.

Reed F. Blair & Co., Pittsburgh, Pa.
M. J. & M. Blake, 97 10th Ave., N. Y.

Bole, Ross & Co., Pittsburgh, Pa.
Bourne-Fuller Co., Cleveland, O.

Cabeen & Co., Arcade Building, Philadelphia, Pa.

Chicago House Wrecking Co., 35th and Iron Sts., Chicago, Ill.

R. M. Cunliffe, 11th St. and Washington Ave., Philadelphia, Pa.

Dallett & Co., Harrison Bldg., Philadelphia, Pa.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

J. K. Dimmick & Co., 223 New Land Title Bldg., Philadelphia, Pa.

Eagle Metal & Supply Co., Brooklyn, N. Y.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.
Hirsch Rolling Mill Co., St. Louis, Mo.

C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.

Hyde Bros. & Co., Pittsburgh, Pa.
B. M. Jones & Co., Inc., Boston, Mass.

Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.

Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

J. Tatnall Lea & Co., 19 So. 12th St., Philadelphia, Pa.

John Leonard & Co., 220 Broadway, N. Y.

Henry Levin & Co., 26 So. 15th St., Philadelphia, Pa.

Merchant & Evans Co., 517 Arch St., Philadelphia, Pa.

A. Milne & Co., 1 Broadway, New York.
J. J. Mohr, 131 So. 4th St., Philadelphia.

Edgar M. Moore & Co., Pittsburgh, Pa.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

North Works, Illinois Steel Co., Chicago, Ill.

Ogden & Wallace, 577 Greenwich St., N. Y.
Samuel Osborn & Co., Boston, Mass.

Patriarche & Bell, 215 Pearl St., N. Y.
F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Pierson & Co., 29 Broadway, N. Y.
Pilling & Crane, Girard Bldg., Philadelphia, Pa.

Horace T. Potts & Co., 316-320 No. 3d St., Philadelphia, Pa.

Potts & Wittman, North American Bldg., Philadelphia, Pa.

Thos. Prosser & Son, 26 Platt St., N. Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Frank Samuel, 15th and Market Sts., Philadelphia, Pa.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Shook & Fletcher, Birmingham, Ala.
Morton B. Smith Co., 243 Front St., N. Y.

W. P. Snyder & Co., Pittsburgh, Pa.
Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.

Swedish Iron & Steel Corporation, 16 Exchange Place, New York.

C. Tennant Sons & Co., 76 William St., New York.

Waite, Ranlet & Co., Boston, Mass.
Walsh's Sons & Co., Newark, N. J.

William E. Walter & Co., Marquette Bldg., Chicago, Ill.

S. & C. Wardlow, 95 John St., N. Y.
Wheeler, Mifflin & Co., Fidelity Bldg., Philadelphia, Pa.

Wheelock, Lovejoy & Co., 23 Cliff St., New York.

E. H. Wilson & Co., 112 No. Broad St., Philadelphia, Pa.

L. & R. Wister & Co., Bullitt Bldg., Philadelphia, Pa.

Woodward, Wight & Co., Ltd., New Orleans, La.

Iron and Steel, Hexagon—
Bethlehem Steel Co., So. Bethlehem, Pa.

Lockhart Iron & Steel Co., Pittsburgh.
Thomas Prosser & Son, 26 Platt St., N. Y.

Iron and Steel Stairs—
(See Stairs, Iron and Steel.)

Iron and Steel, Swedish—
MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Arthur C. Harvey Co., Boston, Mass.

A. Milne & Co., 1 Broadway, New York.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Pierson & Co., 29 Broadway, New York.
Horace T. Potts & Co., 316-320 No. 3d St., Philadelphia, Pa.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.

Swedish Iron & Steel Corporation, 16 Exchange Place, New York.

Wheelock, Lovejoy & Co., 23 Cliff St., New York.

Woodward, Wight & Co., Ltd., New Orleans, La.

Iron and Steel Wire—
(See Wire, Iron and Steel, Market, Fence, Stone, &c.)

Iron Awnings—
(See Awnings, Iron.)

Iron Axle—
B. M. Jones & Co., Inc., Boston, Mass.

Iron Bar—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.
Hirsch Rolling Mill Co., St. Louis, Mo.
Nicolet Plate Washer Co., 1822-1850 W. Junata St., Philadelphia, Pa.
Pittsburgh Forge & Iron Co., Pittsburgh, Pa.

Sligo Iron & Steel Co., Pittsburgh, Pa.

Iron Bars, Boiler Staybolt—
Falls Hollow Staybolt Co., Cuyahoga Falls, O.

Iron Bars, Cold Rolled Sheet, Corrugated, &c.—
(See Bars, Corrugated, &c.)

Iron Bedsteads, Lamps, &c.—
(See Bedsteads, Lamps, &c.)

Iron, Boiler Flange—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.
B. M. Jones & Co., Inc., Boston, Mass.
Lockhart Iron & Steel Co., Pittsburgh, Pa.

Iron, Brass and Bronze, Ornamental (Grilles, Gates, Crestings, Finials, Window Guards, Vases, Wickets, Doors, Partitions, &c.)—

Anchor Post Iron Works, 42 Park Row, New York.

Andrews Wire & Iron Works, Rockford, Ill.

Belmont Iron Works, Inc., Philadelphia.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Buffalo Wire Works Co., Buffalo, N. Y.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Chicago Hardware Foundry Co., North Chicago, Ill.

City Forge & Iron Works, Dayton, O.
Clinton Wire Cloth Co., Clinton, Mass.
Dufur & Co., Baltimore, Md.

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland.
Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Glen Mfg. Co., Ellwood City, Pa.
Hirsch Rolling Mill Co., St. Louis, Mo.
Howard & Morse, 45 Fulton St., N. Y.

Mathew Lanz & Sons, Pittsburgh, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
New Jersey Foundry & Machine Co., 5-15 Murray St., New York.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Stewart Iron Works Co., Cincinnati, O.
E. H. Titchener & Co., Binghamton, N. Y.
W. & Taylor Co., Cleveland, O.

Vau Don Iron Works Co., Cleveland, O.
Wright Wire Co., Worcester, Mass.

Iron Ceiling and Siding—
(See Ceiling and Siding, Iron and Steel.)

Iron Faucets—
(See Faucets, Iron.)

Iron, Horseshoe—
Bethlehem Steel Co., So. Bethlehem, Pa.
Lockhart Iron & Steel Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
Sligo Iron & Steel Co., Pittsburgh, Pa.

Iron Levels—
(See Levels, Iron, also Plumbs and Levels.)

Iron Line Wire, Weather-proof—
(See Wire, Electrical.)

Iron, Pig—
Bethlehem Steel Co., So. Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.
Columbus Iron & Steel Co., Columbus, O.
Hirsch Rolling Mill Co., St. Louis, Mo.
Pilling & Crane, Girard Bldg., Philadelphia, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
Tennessee Coal, Iron & Railroad Co., 71 Broadway, New York.

Upson Nut Co., Cleveland, O.
Youngtown Sheet & Tube Co., Youngtown, O.

MERCHANTS.

Reed F. Blair & Co., Pittsburgh, Pa.

Bole, Ross & Co., Pittsburgh, Pa.

Bourne-Fuller Co., Cleveland, O.

Cabene & Co., Arcade Bldg., Philadelphia, Pa.

J. K. Dimmick & Co., 2023 New Land Title Bldg., Philadelphia, Pa.

J. Brooks Fenne & Co., Boston, Mass.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Hickman, Williams & Co., Chicago, Ill.

J. H. Hillman & Son, Pittsburgh, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

J. Tatnall Lea & Co., 19 So. 12th St., Philadelphia, Pa.

J. J. Mohr, 131 S. 11th St., Philadelphia, Pa.

Edgar M. Moore & Co., Pittsburgh, Pa.

Edmund W. Mudge & Co., Pittsburgh, Pa.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Rogers, Brown & Co., Cincinnati, O.

Frank Samuel, 15th & Market Sts., Philadelphia, Pa.

Charles G. Shepard, Buffalo, N. Y.

W. P. Snyder & Co., Pittsburgh, Pa.

Wheeler, Mifflin & Co., Fidelity Bldg., Philadelphia, Pa.

E. H. Wilson & Co., 112 No. Broad St., Philadelphia, Pa.

L. & R. Wister & Co., Bullitt Bldg., Philadelphia, Pa.

Iron, Pig, Basic—
Bethlehem Steel Co., So. Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.

La Belle Iron Works, Steubenville, O.

Iron, Pig, Charcoal—
Columbus Iron & Steel Co., Columbus, O.
Superior Charcoal Iron Co., Grand Rapids, Mich.

MERCHANTS.

J. K. Dimmick & Co., 2023 New Land Title Bldg., Philadelphia, Pa.

J. H. Hillman & Son, Pittsburgh, Pa.

J. J. Mohr, Bullitt Bldg., Philadelphia, Pa.

Rogers, Brown & Co., Cincinnati, O.
Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.
Charles G. Shepard, Buffalo, N. Y.

Iron, Refrined—
Lockhart Iron & Steel Co., Pittsburgh,
Pa.

Iron, Rivet and Stay Bolt—
American Iron & Steel Mfg. Co., Lebanon,
Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.
Burden Iron Co., Troy, N. Y.
Falls Hollow Staybolt Co., Cuyahoga
Falls, O.

B. M. Jones & Co., Inc., Boston, Mass.
Lockhart Iron & Steel Co., Pittsburgh, Pa.
Pittsburgh Forge & Iron Co., Pittsburgh,
Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
Shenango Iron & Steel Co., Pittsburgh,
Pa.

Sligo Iron & Steel Co., Pittsburgh, Pa.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.
C. B. Houston & Co., Girard Bldg.,
Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwau-
kee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.

Iron Roofing, Rosettes—
(See Roofing, Rosettes.)

Iron, Spindle—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Iron, Stud and Engine Bolt—
Lockhart Iron & Steel Co., Pittsburgh,
Pa.

Iron, Tire—
Sligo Iron & Steel Co., Pittsburgh, Pa.

Iron, Welding—
(See Welding, Iron and Steel, Thermit
Process.)

Iron Wood Screws—
(See Screws, Wood.)

**Iron Work, Builders' (Ve-
randa Columns, Post Caps
and Sockets, Ornamental,
Porticoes, Coal Holes and
Covers, Manhole Cistern
Covers, Sidewalk Lights,
Area Gratings, Foundation
Gratings, Sewer Gratings,
Ash Pit Doors and Frames,
Ventilating Plates, Sash,
Skylight Guards, Canop-
ies, Balconies, Area Rail-
ings, Gutter Crossings,
Foundation Washers,
Brackets, Plates, &c.)—**

Chester B. Albree Iron Works Co., Alle-
gheny, Pa.

Anchor Post Iron Works, 42 Park Row,
New York.

Badger State Machine Co., Janesville,
Wis.

Barbour-Stockwell Co., Cambridgeport,
Mass.

Belmont Iron Works, Inc., Philadelphia.
Bethlehem Foundry & Machine Co., South
Bethlehem, Pa.
Bethlehem Steel Co., So. Bethlehem, Pa.
Buffalo Foundry Co., Buffalo, N. Y.

Thomas Carlin's Sons, Allegheny, Pa.
Chattanooga Car & Foundry Co., Chatta-
nooga, Tenn.

S. Cheney & Son, Manlius, N. Y.
Dufur & Co., Baltimore, Md.

Enterprise Foundry & Fence Co., In-
dianapolis, Ind.

A. W. Findlay & Co., Philadelphia, Pa.
Forest City Steel & Iron Co., Cleveland, O.
Glen Mfg. Co., Ellwood City, Pa.

Wm. H. Haskell Mfg. Co., Pawtucket,
R. I.

Hess-Snyder Co., Massillon, O.
Hilles & Jones Co., Wilmington, Del.

Humphrey Machine Co., Keene, N. H.
W. N. Kratzer & Co., Pittsburgh, Pa.

Matthew Lanz & Sons, Pittsburgh, Pa.
Lebanon Steel Casting Co., Lebanon, Pa.

Lynchburg Foundry Co., Lynchburg, Va.
National Iron & Wire Co., Cleveland, O.

Stewart Iron Works Co., Cincinnati, O.
United States Cast Iron Pipe & Foundry
Co., 71 Broadway, New York.

Van Dorn Iron Works Co., Cleveland, O.
Walker Foundry Co., Erie, Pa.

Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Western Foundry & Sash Weight Co., 2d
and Miller Sts., St. Louis, Mo.

Wheeling Mold & Foundry Co., Wheel-
ing, W. Va.

Wright Wire Co., Worcester, Mass.

Irons and Geese, Tailors'—
Fanner Mfg. Co., Cleveland, O.

Irons, Baling—
Covert Mfg. Co., Troy, N. Y.

Irons, Burnishing—
Dame, Stoddard & Co., Boston, Mass.

Irons, Calking—
W. & J. Tiebout, 118 Chambers St., N. Y.

L. & I. J. White Co., Buffalo, N. Y.

**Irons, Canopy Top, Car-
riage—**
E. D. Clapp Mfg. Co., Auburn, N. Y.

Irons, Corner and Brace—
Griffin Mfg. Co., Erie, Pa.

National Mfg. Co., Sterling, Ill.
Stanley Works, New Britain, Ct.

W. & J. Tiebout, 118 Chambers St., N. Y.

Irons, Curling—
Arcade Mfg. Co., Freeport, Ill.

**Irons, Gear, Carriage and
Wagon—**
E. D. Clapp Mfg. Co., Auburn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.
Northern Malleable Iron Co., St. Paul,
Minn.

Irons, Golf—
Kilborn & Bishop Co., New Haven, Ct.

Page-Storms Drop Forge Co., Chicopee,
Mass.

Irons, Grappling—
W. & J. Tiebout, 118 Chambers St., N. Y.

Irons, Laundry, Tailor, &c.—
Electric—
General Electric Co., Schenectady, N. Y.

Irons, Measuring, Ice—
(See Ice Harvesting Tools.)

Irons, Pinching—
Arcade Mfg. Co., Freeport, Ill.

Irons, Pinking—
Krautter & Co., Inc., Newark, N. J.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Irons, Plane—
Ruck Bros., Millbury, Mass.

Chapin-Stephens Co., Pine Meadow, Ct.

Stanley Rule & Level Co., New Britain, Ct.
L. & I. J. White Co., Buffalo, N. Y.

Irons, Porch Post—
(See Supports, Porch.)

Irons, Sad, Laundry, &c.—
Enterprise Mfg. Co., of Pa., Philadelphia, Pa.

Griswold Mfg. Co., Erie, Pa.
Wrightsville Hardware Co., Wrightsville, Pa.

(See also Irons, Laundry, Tailor, &c., Electric.)

Irons, Sash Cord and Sash Weight—

H. B. Ives Co., New Haven, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pullman Mfg. Co., Rochester, N. Y.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Tower & Lyon Co., 95 Chambers St., New York.

Wire Goods Co., Worcester, Mass.

Irons, Soldering—
(See Coppers, Soldering.)

Irons, Stanchion—
S. Cheney & Son, Manlius, N. Y.

Irons, Timbale—
Wrightsville Hardware Co., Wrightsville, Pa.

Irons, Tapers—

ArCADE Mfg. Co., Freeport, Ill.
Best Mfg. Co., Pittsburgh, Pa.

J. W. Paxson Co., Philadelphia, Pa.
Silver Mfg. Co., Salem, O.

Wrightsville Hardware Co., Wrightsville, Pa.

Irons, Waffle—

Fanner Mfg. Co., Cleveland, O.
Griswold Mfg. Co., Erie, Pa.

Reading Hardware Co., Reading, Pa.
Stuart & Peterson Co., Burlington, N. J.

Wrightsville Hardware Co., Wrightsville, Pa.

Irons, Waffle, Gas—

Griswold Mfg. Co., Erie, Pa.

Irrigation Pumps—
(See Pumps, Irrigation.)

Ivory Rules—
(See Rules, Ivory.)

Jack Chain, Stones—
(See Chain, Stones.)

Jacket Pumps—
(See Pumps, Jacket.)

Jacks, Automobile—

Chicago Steel Foundry Co., The Rookery, Chicago, Ill.

Covert Mfg. Co., Troy, N. Y.

Jacks, Ball Bearing—
Acme Ball-Bearing Sales Co., 56 Warren St., New York.

Smith & Hemenway Co., 108-110 Duane St., New York.

Jacks, Boot—

Columbia Grey Iron Co., Columbia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
Louis Sacks, Newark, N. J.

Susquehanna Casting Co., Wrightsville, Pa.

Jacks, Carriage and Wagon—

ArCADE Mfg. Co., Freeport, Ill.
Bicycle Stepladder Co., 65 Randolph St., Chicago, Ill.

Boston & Lockport Block Co., Boston.
Chicago Steel Foundry Co., The Rookery, Chicago, Ill.

Covert Mfg. Co., Troy, N. Y.
Cutaway Harrow Co., Higganum, Ct.

Fernald Mfg. Co., North East, Pa.
Lane Bros. Co., Poughkeepsie, N. Y.

Millers Falls Co., 28 Warren St., N. Y.
F. E. Myers & Bro., Ashland, O.

R. W. Whitehurst Co., Norfolk, Va.

Jacks, Hydraulic—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Dienelt & Eisenhardt, Inc., 1308 Howard St., Philadelphia, Pa.

Richard Dudgeon, 24 Columbia St., N. Y.
Charles F. Elmes Engineering Co., 253-259 Fulton St., Chicago, Ill.

A. L. Henderson's Sons, Wilmington, Del.
Watson-Stillman Co., 25 Cortlandt St., New York.

Jacks, Hydraulic, Universal—

Richard Dudgeon, 24-26 Columbia St., New York.

Jacks, Ladder—
Bettcher Mfg. Co., Cleveland, O.

Jacks, Lifting—
F. E. Myers & Bro., Ashland, O.

Jacks, Lifting, with Tool Attachments—

Enterprise Foundry & Fence Co., Indianapolis, Ind.

Jacks, Log—
Jeffrey Mfg. Co., Columbus, O.

Wickes Bros., Saginaw, Mich.

Jacks, Machinists—
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Chicago Steel Foundry Co., The Rookery, Chicago, Ill.

Jacks, Planer—
Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.

Jacks, Pneumatic—
Powell Tool Co., Worcester, Mass.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Jacks, Pumping—
American Well Works, Aurora, Ill.

F. E. Myers & Bro., Ashland, O.

Jacks, Railroad—
Chicago Steel Foundry Co., The Rookery, Chicago, Ill.

Richard Dudgeon, 24-26 Columbia St., New York.

Jacks, Screw—
Cleveland City Forge & Iron Co., Cleveland, O.

Covert Mfg. Co., Troy, N. Y.

Goulds Mfg. Co., Seneca Falls, N. Y.

Wm. G. Le Count, East Norwalk, Ct.

Millers Falls Co., 28 Warren St., N. Y.

L. S. Starrett Co., Athol, Mass.

Watson-Stillman Co., 25 Cortlandt St., New York.

Jacks, Timber—
(See Timber Dollies.)

Juggers, Paste—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Jail Cells, Wire—
Buffalo Wire Works Co., Inc., Buffalo, N. Y.

Jails, Jail Cells, &c.—
City Forge & Iron Works, Dayton, O.
Glen Mfg. Co., Ellwood City, Pa.
National Iron & Wire Co., Cleveland, O.
Stewart Iron Works Co., Cincinnati, O.
Van Dorn Iron Works Co., Cleveland, O.

Jamb Hooks—
(See Hooks, Jamb.)

Japanning—
Bossert Electric Construction Co., Utica, N. Y.

S. Cheney & Son, Manlius, N. Y.
Forest City Foundry & Mfg. Co., Cleveland, O.

Gueder & Paeschke Mfg. Co., Milwaukee, Wis.

Hopson & Chapin Mfg. Co., New London, Ct.

Hubley Mfg. Co., Lancaster, Pa.
Palmer & De Mooy Foundry Co., Cleveland, O.

Parker Wire Goods Co., Worcester, Mass.
J. S. Spencer's Sons, Guilford, Ct.

Taylor & Boggis Foundry Co., Cleveland.
Wright Wire Co., Worcester, Mass.

Jar Molds—
(See Molds, Jar and Bottle.)

Jaw Caps, Vice—
(See Vice Jaw Caps.)

Jaw Clutches—
(See Clutches, Jaw.)

Jaws, Face Plate—
Cushman Chuck Co., Hartford, Ct.
Hoggson & Pettis Mfg. Co., New Haven, Ct.

Oneida National Chuck Co., Oneida, N. Y.
Skinner Chuck Co., New Britain, Ct.
Union Mfg. Co., New Britain, Ct.

Jaws, Vice—
Prentiss Vice Co., 44 Barclay St., N. Y.

Jewel Caskets, Silver and Silver Plated—
International Silver Co., Meriden, Ct.

Jewelers' Rolls, Saws, Tools—
(See Rolls, Saws, Tools.)

Jingle Bells—
(See Bells, House or Carriage.)

Jobbers, Bicycle Material and Sundries—
John S. Leng's Son & Co., 33 Murray St., New York.

Jobbers, Hardware, Outlery, Tools, Sporting Goods, &c.—

C. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.

Burditt & Williams Co., Boston, Mass.

Butler Bros., Randolph Bridge, Chicago.

Chicago House Wrecking Co., W. 35th & Iron Sts., Chicago, Ill.

Dame, Stoddard & Co., Boston, Mass.

Alfred Field & Co., 93 Chambers St., New York.

Hibbard, Spencer, Bartlett & Co., State St. Bridge, Chicago, Ill.

John S. Leng's Son & Co., 33 Murray St., New York.

Norvell-Shapleigh Hardware Co., St. Louis, Mo.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Simmons Hardware Co., St. Louis, Mo.

Supplee Hardware Co., Market and 5th Sts., Philadelphia, Pa.

Woodward, Wight & Co., Ltd., New Orleans, La.

Joint Couplings—
(See Couplings, Joint.)

Jointer Gauges—
(See Gauges, Jointer.)

Jointers, Saw—
Crescent Machine Co., Leetonia, O.

Pike Mfg. Co., Pike, N. H.

Jointers, Tucking—
L. & I. J. White Co., Buffalo, N. Y.

Joints, Expansion Pipe—
Alberger Condenser Co., 95 Liberty St., New York.

Lunkenheimer Co., Cincinnati, O.

National Tube Co., Pittsburgh, Pa.

Wm. Powell Co., Cincinnati, O.

Power Specialty Co., 111 Broadway, N. Y.

Whitlock Coil Pipe Co., Hartford, Ct.

Joints, Rail—
Goldschmidt Thermit Co., 41 Wall St., New York.

Arthur Koppel Co., Pittsburgh, Pa.

Joints, Step Ladder—
Stanley Works, New Britain, Ct.

Joints, Stump—
E. D. Clapp Mfg. Co., Auburn, N. Y.

Joints, Universal—
Rausch Machine Tool Co., Springfield, Mass.

Boston Gear Works, Norfolk Downs, Mass.

Cambria Forge Co., Johnstown, Pa.

Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Gem Mfg. Co., Pittsburgh, Pa.

Gould & Eberhardt, Newark, N. J.

Poole Engineering & Machine Co., Baltimore, Md.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Joist Hangers—
(See Hangers and Stirrups.)

Juice Extractors—
(See Extractors, Juice.)

Kaolin—
Ostrander Fire Brick Co., Troy, N. Y.

J. W. Paxson Co., Philadelphia, Pa.

Keg Machinery and Tools—
Peter Gerlach Co., Cleveland, O.

Kegs, Factory—
W. J. Clark Co., Salem, O.

Kegs, Nail, Bolt, Nut, &c.—
W. J. Clark Co., Salem, O.

Kerosene Burners—
(See Burners, Kerosene.)

Kettles, Cauldron—
S. Cheney & Son, Manlius, N. Y.

Kettles, Dip and Pouring—
W. J. Clark Co., Salem, O.

Kettles, Five o'Clock Tea—
Goodwin & Kintz Co., Winsted, Ct.

Kettles, Galvanizing—
Warren City Tank & Boiler Works, Warren, O.

Kettles, Maslin—
Avery Stamping Co., Cleveland, O.

Stuart & Peterson Co., Burlington, N. J.

Kettles, Mixing—
E. B. Badger & Sons Co., Boston, Mass.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Kettles on Wheels—
Stuart & Peterson Co., Burlington, N. J.

Kettles, Pitch—
F. H. Evans, Brooklyn, N. Y.

Stuart & Peterson Co., Burlington, N. J.

Kettles, Plate Steel—
W. J. Clark Co., Salem, O.

Kettles, Pouring—
(See Kettles, Dip and Pouring.)

Kettles, Roofing—

F. H. Evans, Brooklyn, N. Y.
Kettles, Soda and Potash—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Hess-Snyder Co., Massillon, O.
 Manufacturing Equipment & Engineering Co., Boston, Mass.
 Pennsylvania Engineering Works, New Castle, Pa.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Kettles, Steam Jacket—

E. B. Badger & Sons Co., Boston, Mass.
 E. Keeler Co., Williamsport, Pa.
 R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.
 Petroleum Iron Works Co., Sharon, Pa.
 Stuart & Peterson Co., Burlington, N. J.

Kettles, Steaming—

W. J. Clark Co., Salem, O.

Kettles, Sugar—

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Kettles, Sugar, Cast Iron—

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Kettles, Tar—

Thomas Carlin's Sons, Allegheny, Pa.
 F. H. Evans, Brooklyn, N. Y.
 E. Keeler Co., Williamsport, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Kettles, Tea, Range, Stove—

Avery Stamping Co., Cleveland, O.
 Cleveland Stamping & Tool Co., Cleveland, O.

Kettles, Wash—

W. J. Clark Co., Salem, O.

Key Chains, Checks, &c.—

(See Chains, Checks, &c.)

Key Seaters, Portable—

John T. Burr & Son, 429-431 Kent Ave., Brooklyn, N. Y.
 Rockford Drilling Machine Co., Rockford, Ill.

Key Way Machines—

John T. Burr & Sons, Brooklyn, N. Y.
 W. P. Davis Machine Co., Rochester, N. Y.

Lapointe Machine Tool Co., Hudson, Mass.
 Morse Twist Drill & Machine Co., New Bedford, Mass.
 Morton Mfg. Co., Muskegon Heights, Mich.

National Machine Tool Co., Cincinnati, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.

Novelty Iron Works, Dubuque, Ia.

MERCHANTS,
 Hill, Clarke & Co., Boston, Mass.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Marshall & Hushart Machinery Co., 62-64 S. Canal St., Chicago, Ill.
 Metch & Merryweather Machinery Co., Cleveland, O.

Scully Steel & Iron Co., 69 North Halsted St., Chicago, Ill.
 Vandyck, Churchill Co., 8 Dey St., N. Y.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 C. C. Warner Machinery Co., Detroit.

Keyhole Saws—

(See Saws, Compass or Keyhole.)

Keys and Cotters, Spring—

(See Cotters and Keys, Spring.)

Keys and Key Blanks—

Eagle Lock Co., Terryville, Ct.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-96 Lafayette St., New York.

Keys, Flat Spring—

Cobb & Drew, Plymouth, Mass.
 Hindley Mfg. Co., Valley Falls, R. I.
 F. P. Smith & Co., Sharon Hill, Pa.
 W. & S. Mfg. Co., Worcester, Mass.
 Whitman & Barnes Mfg. Co., Chicago.
 Wire Goods Co., Worcester, Mass.

Keys, Machine—

Billings & Spencer Co., Hartford, Ct.
 Morton Mfg. Co., Muskegon Heights, Mich.

Keys, Radiator, Air Valve—

National Tube Co., Pittsburgh, Pa.

Keys, Riveted, Machine—

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Hindley Mfg. Co., Valley Falls, R. I.

Whitman & Barnes Mfg. Co., Chicago.

Keys, Shapes for—

Finished Steel Co., Youngstown, O.

Keys, Street Washer—

National Tube Co., Pittsburgh, Pa.

Kick Plates—

(See Plates, Push, Pull, Kick.)

Killers, Fly—

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Kilns, Cement—

American Furnace & Machine Co., Pittsburgh, Pa.

Kiln & Chimney Construction Co., Brooklyn, N. Y.

Kilns, Dry—

Bayley Mfg. Co., Milwaukee, Wis.

Buffalo Forge Co., Buffalo, N. Y.

Kiln & Chimney Construction Co., Brooklyn, N. Y.

Massachusetts Fan Co., Watertown, Mass.

B. F. Sturtevant Co., Boston, Mass.

Kilns, Lime—

Kiln & Chimney Construction Co., Brooklyn, N. Y.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

King Bolts—

(See Bolts, King.)

Kitchen Articles, Wire (Egg

Boilers, Vegetable Bol-

lers, Chain Pot Cleaners,

Bread and Cake Coolers,

Dish Drainers, Kitchen

Forks, Vegetable Lifters,

Vegetable Mashers, Skim-

mers, Strainers, Toasters,

Potato Fryers, Berry

Washers, Culinary Bas-

kets)—

Andrews Wire & Iron Works, Rockford, Ill.

Cleveland Stamping & Tool Co., Cleveland, O.

Kilbourne Mfg. Co., Troy, N. Y.

Landers, Frary & Clark, New Britain, Ct.

Parker Wire Goods Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Kitchen Forks, Knives—

(See Forks, Knives.)

- Kitchen Saws—**
(See Saws, Butcher and Kitchen.)
- Knees, Rob Iron—**
S. Cheney & Son, Manlius, N. Y.
- Knees, Sample Case—**
Eagle Lock Co., Terryville, Ct.
- Knife Sharpeners—**
(See Sharpeners, Knife.)
- Knives and Forks, Carving—**
American Cutlery Co., Chicago, Ill.
John Chatillon & Sons, 85 Cliff St., N. Y.
Alfred Field & Co., 93 Chambers St., New York.
Goodell Co., Antrim, N. H.
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
Landers, Frary & Clark, New Britain, Ct.
- Knives and Forks, Cooks—**
Landers, Frary & Clark, New Britain, Ct.
- Knives, Angles—**
Simonds Mfg. Co., Fitchburg, Mass.
- Knives, Apple, Trimming—**
Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.
- Knives, Asparagus—**
Goodell Co., Antrim, N. H.
- Knives, Banana—**
Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.
- Knives, Beef—**
American Fork & Hoe Co., Cleveland, O.
E. C. Atkins & Co., Indianapolis, Ind.
Geo. H. Bishop & Co., Cincinnati, O.
Columbian Cutlery Co., Reading, Pa.
Henry Disston & Sons, Philadelphia, Pa.
Landers, Frary & Clark, New Britain, Ct.
- Knives, Belt—**
American Tool & Machine Co., Boston.
- Knives, Bread—**
Goodell Co., Antrim, N. H.
- Knives, Budding and Grafting—**
Alfred Field & Co., 93 Chambers St., N. Y.
- Knives, Butcher, Slicing—**
Bread, Shoe, &c.—
American Cutlery Co., Chicago, Ill.
Hermann Boker & Co., 101 Duane St., New York.
John Chatillon & Sons, 85 Cliff St., N. Y.
Columbian Cutlery Co., Reading, Pa.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Dame, Stoddard & Co., Boston, Mass.
Alfred Field & Co., 93 Chambers St., New York.
Goodell Co., Antrim, N. H.
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
Landers, Frary & Clark, New Britain, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.
Supply Hardware Co., Market and 5th Sts., Philadelphia, Pa.
Tuck Mfg. Co., Brockton, Mass.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
- Knives, Butter—**
Goodell Co., Antrim, N. H.
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
Landers, Frary & Clark, New Britain, Ct.
- Knives, Cake—**
Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.
- Knives, Cane—**
E. C. Atkins & Co., Indianapolis, Ind.
Geo. H. Bishop & Co., Cincinnati, O.
- Henry Disston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.
- Knives, Champe—**
L. & I. J. White Co., Buffalo, N. Y.
- Knives, Cheese—**
Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.
- Knives, Cigar—**
American Cutlery Co., Chicago, Ill.
Dame, Stoddard & Co., Boston, Mass.
Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.
- Knives, Combination, and Screw Driver—**
Billings & Spencer Co., Hartford, Ct.
- Knives, Corn—**
American Fork & Hoe Co., Cleveland, O.
E. C. Atkins & Co., Indianapolis, Ind.
Geo. H. Bishop & Co., Cincinnati, O.
Henry Disston & Sons, Philadelphia, Pa.
Goodell Co., Antrim, N. H.
John H. Graham & Co., 113 Chambers St., New York.
Landers, Frary & Clark, New Britain, Ct.
National Saw Co., Newark, N. J.
- Knives, Cotton Sampling—**
Landers, Frary & Clark, New Britain, Ct.
- Knives, Crumb—**
American Cutlery Co., Chicago, Ill.
- Knives, Drawing—**
Buck Bros., Millbury, Mass.
Henry Disston & Sons, Philadelphia, Pa.
C. E. Jennings & Co., 42 Murray St., New York.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
James Swan Co., Seymour, Ct.
L. & I. J. White Co., Buffalo, N. Y.
- Knives, Electricians—**
Smith & Hemenway Co., 108-110 Duane St., New York.
- Knives, Farrier—**
Alfred Field & Co., 93 Chambers St., New York.
Heller Bros. Co., Newark, N. J.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
- Knives, Fish—**
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
Landers, Frary & Clark, New Britain, Ct.
- Knives, Fruit—**
Columbian Cutlery Co., Reading, Pa.
Goodell Co., Antrim, N. H.
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
Landers, Frary & Clark, New Britain, Ct.
- Knives, Glass Handle—**
Goodell Co., Antrim, N. H.
- Knives, Glaziers—**
(See Knives, Putty.)
- Knives, Grape Fruit—**
Goodell Co., Antrim, N. H.
- Knives, Hacking—**
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
Landers, Frary & Clark, New Britain, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.
- Knives, Hay and Straw—**
Iwan Bros., Streator, Ill.
Ney Mfg. Co., Canton, O.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
- Knives, Hedge—**
E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.
Henry Disston & Sons, Philadelphia, Pa.

Knives, Hunting—
Alfred Field & Co., 93 Chambers St., New York.
Goodell Co., Antrim, N. H.
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
Landers, Frary & Clark, New Britain, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Knives, Kitchen—
American Cutlery Co., Chicago, Ill.
John Chatillon & Sons, 85 Cliff St., N. Y.
Columbian Cutlery Co., Reading, Pa.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Alfred Field & Co., 93 Chambers St., New York.
Goodell Co., Antrim, N. H.
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
Landers, Frary & Clark, New Britain, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Knives, Lawn Mower—
Harrow Spring Co., Kalamazoo, Mich.

Knives, Lemon—
Alfred Field & Co., 93 Chambers St., New York.
Goodell Co., Antrim, N. H.
Landers, Frary & Clark, New Britain, Ct.

Knives, Machine (Planer), Paper Cutting, Leather Splitting, Chair Bottom, Washboard, Stave, Miter, &c.)—

E. C. Atkins & Co., Indianapolis, Ind.
John Chatillon & Sons, 85 Cliff St., N. Y.
Coes Wrench Co., Worcester, Mass.
Henry Disston & Sons, Philadelphia, Pa.
Fox Machine Co., Grand Rapids, Mich.
Heppenstall Forge & Knife Co., Pittsburgh, Pa.
Hobbs Mfg. Co., Worcester, Mass.
National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.
L. & I. J. White Co., Buffalo, N. Y.

Knives, Metal Shear—
(See Blades, Metal Shear.)

Knives, Mining—
Arcade Mfg. Co., Freeport, Ill.
Geo. H. Bishop & Co., Cincinnati, O.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
John H. Graham & Co., 113 Chambers St., New York.
Kilbourne Mfg. Co., Troy, N. Y.
Landers, Frary & Clark, New Britain, Ct.
National Saw Co., Newark, N. J.
Smith & Hemenway Co., 108-110 Duane St., New York.

Knives, Mixing—
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Landers, Frary & Clark, New Britain, Ct.

Knives, Mower and Reap-

er—
Whitaker Mfg. Co., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago.

Knives, One Arm Man's—
Landers, Frary & Clark, New Britain, Ct.

Knives, Orange—

Frie Specialty Co., Erie, Pa.

Goodell Co., Antrim, N. H.

Knives, Oyster and Clam—

John Chatillon & Sons, 85 Cliff St., N. Y.

Dame, Stoddard & Co., Boston, Mass.

Alfred Field & Co., 93 Chambers St., New York.

Landers, Frary & Clark, New Britain, Ct.

Tuck Mfg. Co., Brockton, Mass.

Knives, Palette—
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Knives, Paper Cutter—
E. C. Atkins & Co., Indianapolis, Ind.

Billings & Spencer Co., Hartford, Ct.

Knives, Paper Hangers—
American Cutlery Co., Chicago, Ill.

Goodell Co., Antrim, N. H.

Landers, Frary & Clark, New Britain, Ct.

Smith & Hemenway Co., 108-110 Duane St., New York.

Webster & Perkins Tool Co., Springfield, O.

Knives, Paper, Oil Cloth,

Rubber, Cork, Leather,

Cloth, &c.—

E. C. Atkins & Co., Indianapolis, Ind.

Billings & Spencer Co., Hartford, Ct.

Dame, Stoddard & Co., Boston, Mass.

Henry Disston & Sons, Philadelphia, Pa.

Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Landers, Frary & Clark, New Britain, Ct.

Smith & Hemenway Co., 108-110 Duane St., New York.

Tuck Mfg. Co., Brockton, Mass.

Knives, Paper Trimming—
L. & I. J. White Co., Buffalo, N. Y.

Knives, Pie—
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Landers, Frary & Clark, New Britain, Ct.

Knives, Planer—
L. & I. J. White Co., Buffalo, N. Y.

Knives, Pocket Tool Kit—
Adolph Kastor & Bros., 109 Duane St., New York.

Knives, Press Button—
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Knives, Printers' Ink—
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Knives, Pruning—
Alfred Field & Co., 93 Chambers St., New York.

Knives, Putty—
American Cutlery Co., Chicago, Ill.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Columbian Cutlery Co., Reading, Pa.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Goodell Co., Antrim, N. H.

Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.

Landers, Frary & Clark, New Britain, Ct.

Smith & Hemenway Co., 108-110 Duane St., New York.

Knives, Rotary Slitting—
E. C. Atkins & Co., Indianapolis, Ind.

Blake & Johnson Co., Waterbury, Ct.

Niagara Machine & Tool Works, Buffalo, N. Y.

Simonds Mfg. Co., Fitchburg, Mass.

Knives, Saw—
E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.
Henry Disston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.

Knives, Silver and Silver Plated—

Goodell Co., Antrim, N. H.

Knives, Slicing, Ham and Beef—

Landers, Frary & Clark, New Britain, Ct.

Knives, Sportsmen's—

Billings & Spencer Co., Hartford, Ct.

Alfred Field & Co., 93 Chambers St., New York.

Goodell Co., Antrim, N. H.

Smith & Hemenway Co., 108-110 Duane St., New York.

Knives, Stave—

L. & I. J. White Co., Buffalo, N. Y.

Knives, Steak, Individual—

Goodell Co., Antrim, N. H.

Knives, Strike Brick—

E. C. Atkins & Co., Indianapolis, Ind.

Knives, Tobacco—

E. C. Atkins & Co., Indianapolis, Ind.

Landers, Frary & Clark, New Britain, Ct.

Simonds Mfg. Co., Fitchburg, Mass.

Tuck Mfg. Co., Brockton, Mass.

L. & I. J. White Co., Buffalo, N. Y.

Knives, Tomato—

Goodell Co., Antrim, N. H.

Knives, Veneer—

L. & I. J. White Co., Buffalo, N. Y.

Knives, Wood Carvers—

Smith & Hemenway Co., 108-110 Duane St., New York.

Knives, Wood Pulp—

E. C. Atkins Co., Indianapolis, Ind.

Simonds Mfg. Co., Fitchburg, Mass.

Knob Screws—

(See Screws, Knob.)

Knobs, Base and Floor—

Jos. Bardsley, 147-151 Baxter St., N. Y.

W. B. Hartigan, Collinsville, Ct.

H. A. Stiles & Co., Boston, Mass.

Union Hardware Co., Torrington, Ct.

Knobs, Carriage—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Walter W. Woodruff & Sons Co., Mt. Carmel, Ct.

Knobs, Door—

Jos. Bardsley, 147-151 Baxter St., N. Y.

Otto Konigsfrow Mfg. Co., Cleveland, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Piqua Handle & Mfg. Co., Piqua, O.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Taylor & Boggis Foundry Co., Cleveland, O.

Knobs, Drawer and Shut-ter—

American Ring Co., Waterbury, Ct.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Knobs, Enameled—

Baker, McMillen Co., Akron, O.

H. A. Stiles & Co., Boston, Mass.

Knobs, Picture—

Baker, McMillen Co., Akron, O.

Turner & Stanton Co., Norwich, Ct.

Knobs, Plane—

H. A. Stiles & Co., Boston, Mass.

Knockers, Door—

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Knuckles, Steel—

American Steel Foundries, 42 Broadway, New York.

Knurling Tools—

(See Tools, Knurling.)

Knurls and Knurled Nuts—

(See Nuts, Knurled.)

Knurls, Wrench—

Hartford Machine Screw Co., Hartford, Ct.

Labeling Machines, Bottle—

Chas. E. Leffler & Co., Brooklyn, N. Y.

Labels, Brass—

George M. Ness, Jr., 61 Fulton St., N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.

Labels, Plant and Tree—

Boston & Lockport Block Co., Boston.

Laboratory Outfits—

Elmer & Amend, 255 Third Ave., N. Y.

Lace Hook Setting Machines—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Lacing, Leather, Rawhide, Steel, and Hooks, Belt.)

Lacquers—

Hanson & Van Winkle Co., Newark, N. J.

Zucker & Lerett & Loeb Co., 526-530 West 25th St., New York.

Ladders, Rolling Store—

Allith Mfg. Co., 122-124 S. Green St., Chicago, Ill.

Bicycle Step Ladder Co., 65 Randolph St., Chicago, Ill.

Lane Bros. Co., Poughkeepsie, N. Y.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

S. B. Martin, Dalton, O.

Milbradt Mfg. Co., St. Louis, Mo.

F. E. Myers & Bro., Ashland, O.

Ladders, Sectional, Extension and Single—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Ladders, Steel—

Grabler Mfg. Co., Cleveland, O.

F. E. Myers & Bro., Ashland, O.

Ladders, Steel Folding—

American File Sharpener Co., 256 Broadway, New York.

Ladders, Step—

H. Adler Co., Carnegie, Pa.

Fuller Mfg. Co., St. Paul, Minn.

Milbradt Mfg. Co., St. Louis, Mo.

R. W. Whitehurst Co., Norfolk, Va.

Ladle Stoppers—

(See Stoppers, Ladle.)

Ladles, Babbitt—

Byram & Co., Inc., Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

Ladies, Bottom Tap—
Northern Engineering Works, Detroit,
Mich.

Ladies, Buggy or Truck—
Northern Engineering Works, Detroit,
Mich.

Ladies, Foundry—
Byram & Co., Inc., Detroit, Mich.
W. J. Clark Co., Salem, O.
Arthur Koppel Co., Pittsburgh, Pa.
Meehan Boiler & Construction Co., Low-
ellville, O.

R. Munroe & Sons Mfg. Corporation,
Pittsburgh, Pa.
Northern Engineering Works, Detroit,
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., Philadelphia, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
J. D. Smith Foundry Supply Co., Cleve-
land, O.
Western Foundry Supply Co., Cliff and
John Sts., New York.
Whiting Foundry Equipment Co., Har-
vey, Ill.

Ladies, Melting—
W. J. Clark Co., Salem, O.
Lalance & Grosjean Mfg. Co., 299 Broad-
way, New York.
Meehan Boiler & Construction Co., Low-
ellville, O.

R. Munroe & Sons Mfg. Corporation,
Pittsburgh, Pa.
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., Philadelphia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
Pennsylvania Engineering Works, New
Castle, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Reading Hardware Co., Reading, Pa.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Wrightsville Hardware Co., Wrightsville,
Pa.

Lag and Coach Screws—
(See Screws, Coach and Lag.)

**Lamp Attachments, Elec-
tric, for Gas Fixtures—**
(See Electric Light Fittings.)

**Lamp Brackets, Chimney
Heaters, &c.—**
(See Brackets, Heaters, &c.)

Lamp Cord—
(See Wires, Electrical.)

Lamp Hooks—
(See Hooks, Chandelier or Lamp.)

Lamp Parts—
(See Automobile Parts.)

Lampblack—
Samuel Cabot, Inc., Boston, Mass.

**Lamps, Acetylene and Elec-
tric, Bicycle, Carriage and
Automobile—**

Bridgeport Brass Co., 253 B'way, N. Y.
R. E. Dietz Co., 60 Lighthouse St., N. Y.

Lamps, Arc—
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Lamps, Automobile, Oil—
John H. Graham & Co., 113 Chambers
St., New York.

Lamps, Bicycle—
Bridgeport Brass Co., 253 B'way, N. Y.

Plume & Atwood Mfg. Co., Waterbury,
Conn.

Lamps, Dash—
R. E. Dietz Co., 60 Lighthouse St., N. Y.

Lamps, Enclosed Arc—
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Lamps, Five O'Clock Tea—
New York Stamping Co., Brooklyn, N. Y.

Lamps, Gas Arc—
General Gas Light Co., Kalamazoo,
Mich.

Lamps, Gasoline Gas—
American Gas Machine Co., Albert Lea,
Minn.

Schneider & Trenkamp Co., Div. Ameri-
can Stove Co., Cleveland, O.

Lamps, Hand—
Bridgeport Brass Co., 253 B'way, N. Y.
Gem Mfg. Co., Pittsburgh, Pa.

**Lamps, Hunting, Hanging,
&c.—**
R. E. Dietz Co., 60 Lighthouse St., N. Y.

Lamps, Incandescent—
General Electric Co., Schenectady, N. Y.
W. R. Ostrander & Co., 22 Day St., N. Y.

Lamps, Iron, Malleable—
Hammer & Co., Branford, Conn.

Lamps, Metallic Frame—
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Lamps, Miners—
American Tube & Stamping Co., Bridge-
port, Conn.

Lamps, Motor, Kerosene—
R. E. Dietz Co., 60 Lighthouse St., N. Y.

**Lamps, Ornamental Elec-
tric—**
Stewart Iron Works Co., Inc., Cincin-
nati, O.

Lamps, Shoemakers' Kit—
Louis Sacks, Newark, N. J.

Lamps, Shon and Foundry—
Forest City Foundry & Mfg. Co., Cleve-
land, O.

S. Obermayer Co., Cincinnati, O.
Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.
J. D. Smith Foundry Supply Co., Cleve-
land, O.

Schneider & Trenkamp Co., Div. Ameri-
can Stove Co., Cleveland, O.

**Lamps, Street, Yard, Mill,
&c.—**
American Gas Machine Co., Albert Lea,
Minn.

American Tube & Stamping Co., Bridge-
port, Conn.

R. E. Dietz Co., 60 Lighthouse St., N. Y.
Royal Gas Light Co., 215 E. Kinzie St.,
Chicago, Ill.

Schneider & Trenkamp Co., Div. Ameri-
can Stove Co., Cleveland, O.

**Lamps, Table, Banquet,
Hanging, Piano, &c.—**
Bridgeport Brass Co., 253 B'way, N. Y.
Charles Parker Co., Meriden, Conn.

Plume & Atwood Mfg. Co., Waterbury,
Conn.

Scovill Mfg. Co., Waterbury, Ct.
Simmons Hardware Co., St. Louis, Mo.

Lanterns, Fire Department—
R. E. Dietz Co., 60 Laight St., N. Y.

Lanterns, Kerosene, &c.—
Bridgeport Brass Co., 233 B'way, N. Y.

Delphos Mfg. Co., Delphos, O.
R. E. Dietz Co., 60 Laight St., N. Y.

Lanterns, Mill—
R. E. Dietz Co., 60 Laight St., N. Y.

Lanterns, Police—
Tower & Lyon Co., 95 Chambers St., N. Y.

Lanterns, Railroad and Conductors—
R. E. Dietz Co., 60 Laight St., N. Y.

Lanterns, Tubular—
(See Lanterns, Kerosene, &c.)

Lap Lasts—
(See Lasts, Lap.)

Lapping Machines—
Blake & Johnson Co., Waterbury, Ct.

Builders' Iron Foundry, Providence, R. I.
Niles-Bement-Pond Co., 111 Broadway,

New York.
Northampton Emery Wheel Co., Leeds,

Mass.

Lard Presses—
(See Presses, Lard.)

Lariat and Picket Pins—
Covert Mfg. Co., Troy, N. Y.

Lariats—
Broderick & Bascom Rope Co., St. Louis,

A. Leschen & Sons Rope Co., St. Louis,
Plymouth Cordage Co., North Plymouth,

Mass.

Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Larries, Scale—
Wellman-Seaver-Morgan Co., Cleveland, O.

Last Turning Machinery—
(See Lathes, Last.)

Lasts and Stands, Shoe—
Chattanooga Roofing & Foundry Co.,

Chattanooga, Tenn.
Louis Sacks, Newark, N. J.

Wrightsville Hardware Co., Wrightsville,
Pa.

Lasts, Lap—
Louis Sacks, Newark, N. J.

Latches and Locks, Door, Barn Door—
(See Locks and Latches.)

Latches, Automatic, Fire

Engine House Door—
Chicago Spring Butt Co., Chicago, Ill.

Latches, Door—
(See Locks, Latches, &c.)

Latches, Elevator Door—
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.

Latches, Gate—
Peck, Stow & Wilcox Co., 27 Murray St.,

New York.
Reading Hardware Co., Reading, Pa.

Susquehanna Castings Co., Wrightsville,
Pa.

Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Latches, Locks, &c.—
(See Locks, Latches, &c.)

Latches, Night—
Eagle Lock Co., Terryville, Ct.

Miller Lock Co., Philadelphia, Pa.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.

Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Latches, Refrigerator—
Bernard Gloekler Co., Pittsburgh, Pa.

Reading Hardware Co., Reading, Pa.

Latches, Thumb—
Columbia Grey Iron Co., Columbia, Pa.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette

St., New York.
Stanley Works, New Britain, Ct.

Latches, Water Closet—
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.

Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Lath, Corrugated, Expanded

Metal—
American Sheet and Tin Plate Co., Pitts-

burgh, Pa.
Buffalo Wire Works Co., Buffalo, N. Y.

Michigan Wire Cloth Co., Detroit, Mich.
Youngstown Iron & Steel Roofing Co.,

Youngstown, O.

Lath Machines, Sheet Metal—
W. H. Hibbard Mfg. Co., Brooklyn,

N. Y.
George A. Ohl & Co., Newark, N. J.

Lath Machines, Wood—
Lane Mfg. Co., Montpelier, Vt.

Lath, Sheet Metal—
American Sheet and Tin Plate Co., Pitts-

burgh, Pa.
Youngstown Iron & Steel Roofing Co.,

Youngstown, O.

Lath, Wire—
Buffalo Wire Works Co., Inc., Buffalo,

N. Y.
Clinton Wire Cloth Co., Clinton, Mass.

Dufur & Co., Baltimore, Md.
Gilbert & Bennett Mfg. Co., 277 Broad-

way, New York.
Michigan Wire Cloth Co., Detroit, Mich.

New Jersey Wire Cloth Co., Trenton, N. J.
Wright Wire Co., Worcester, Mass.

Lath, Yarn—
Broderick & Bascom Rope Co., St. Louis,

A. Leschen & Sons Rope Co., St. Louis.

Lathe Attachments, Bench—
American Watch Tool Co., Waltham,

Mass.

O. K. Tool Holder Co., Shelton, Ct.

Lathe Chucks, Dogs, &c.—
(See Chucks, Dogs, &c.)

Lathes—
American Tool Works Co., Cincinnati, O.

Automatic Machine Co., Bridgeport, Ct.
Wm. Barker & Co., Cincinnati, O.

W. F. & J. Barnes Co., Rockford, Ill.
Blake & Johnson Co., Waterbury, Ct.

Bradford Machine Tool Co., Cincinnati, O.
Champion Tool Works Co., Cincinnati, O.

W. P. Davis Machine Co., Rochester,
N. Y.

Dress Machine Tool Co., Cincinnati, O.
Garvin Machine Co., Spring and Varick

Sts., New York.
Greaves, Klugman & Co., Cincinnati, O.

Hannon & Finton, Springfield, Mass.

E. Harrington, Son & Co., Inc., Philadelphia, Pa.
 L. H. Johnson, Jr., Co., Inc., 1422 Callowhill St., Philadelphia, Pa.
 Jones & Lamson Machine Co., Springfield, Vt.
 R. K. Le Blond Machine Tool Co., Cincinnati, O.
 Lodge & Shipley Machine Tool Co., Cincinnati, O.
 J. J. McCabe, 14 Dey St., New York.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 E. J. Manville Machine Co., Waterbury, Ct.
 Millers Falls Co., 28 Warren St., N. Y.
 New Haven Mfg. Co., New Haven, Ct.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Oliver Machinery Co., Grand Rapids, Mich.
 Potter & Johnston Machine Co., Pawtucket, R. I.
 Pratt & Whitney Co., Hartford, Ct.
 Rahn-Carpenter Co., Cincinnati, O.
 F. E. Reed Co., Worcester, Mass.
 Rockford Drilling Machine Co., Rockford, Ill.
 Schumacher & Boye, Cincinnati, O.
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.
 Von Wyck Machine Tool Co., Cincinnati, O.
 Waltham Machine Works, Waltham, Mass.
 Warner & Swasey Co., Cleveland, O.
 Whitcomb-Halsdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
 W. B. Beatty Machinery & Equipment Co., Pittsburgh, Pa.
 Brown & Zortman Machinery Co., Pittsburgh, Pa.
 Hill, Clarke & Co., Boston, Mass.
 W. C. Johnson & Sons Machinery Co., St. Louis, Mo.
 Machinists Supply Co., 16-18 So. Canal St., Chicago, Ill.
 Marshall & Hushart Machinery Co., 62 8 S. Canal St., Chicago, Ill.
 Edgar M. Moore & Co., Pittsburgh, Pa.
 McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.
 New York Machinery Co., 120 Broadway, New York.
 Perkins & Frecker, 136 Liberty St., N. Y.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 W. L. Sargent, Fitchburg, Mass.
 Scully Steel & Iron Co., 69 No. Halsted St., Chicago, Ill.
 L. F. Seyfert's Sons, Inc., 437-441 N. 3d St., Philadelphia, Pa.
 H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
 Frank Toomey, 127-131 N. 3d St., Philadelphia, Pa.
 Jacob Ullman, Buffalo, N. Y.
 Vandrick, Churchill Co., 8 Dey St., N. Y.
 A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Wickes Bros., Saginaw, Mich.
 C. O. Wormer Machinery Co., Detroit, Mich.

Lathes, All Geared Head—
 American Tool Works Co., Cincinnati, O.
Lathes, Armature Banding—
 Greaves, Klusman & Co., Cincinnati, O.
Lathes, Automatic Chuck Turret—
 Petter & Johnston Machine Co., Pawtucket, R. I.
 Pratt & Whitney Co., Hartford, Ct.
Lathes, Automatic Screw Threading—
 Automatic Machine Co., Bridgeport, Ct.
 Pratt & Whitney Co., Hartford, Ct.
Lathes, Axle—
 I. H. Johnson Jr., Co., Inc., 1422 Callowhill St., Philadelphia, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
 Brown & Zortman Machinery Co., Pittsburgh, Pa.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.
 Wickes Bros., Saginaw, Mich.
 C. O. Wormer Machinery Co., Detroit, Mich.
Lathes, Bench—
 American Watch Tool Co., Waltham, Mass.
 Garvin Machine Co., Spring & Varick Sts., New York.
 Goodell-Pratt Co., Greenfield, Mass.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Pratt & Whitney Co., Hartford, Ct.
 F. E. Reed Co., Worcester, Mass.
 Rockford Drilling Machine Co., Rockford, Ill.
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.
 Sloan & Chace Mfg. Co., Ltd., Newark, N. J.
 Taylor & Fenn Co., Hartford, Ct.
 Waltham Machine Works, Waltham, Mass.
 F. E. Wells & Sons Co., Greenfield, Mass.
Lathes, Brass—
 American Tool & Machine Co., Boston.
 Wm. Barker & Co., Cincinnati, O.
 Dreses Machine Tool Co., Cincinnati, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Warner & Swasey Co., Cleveland, O.
MERCHANTS.
 Hill, Clarke & Co., Boston, Mass.
 Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.
 Motch & Merryweather Machinery Co., Cleveland, O.
 C. O. Wormer Machinery Co., Detroit, Mich.
Lathes, Buffing and Polishing—
 (See Buffing and Polishing Machines.)
Lathes, Car Wheel—
 J. J. McCabe, 14 Dey St., New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
Lathes, Chucking—
 American Tool Works Co., Cincinnati, O.
 Bradford Machine Tool Co., Cincinnati, O.
 Champion Tool Works Co., Cincinnati, O.

Drees Machine Tool Co., Cincinnati, O.
Garvin Machine Co., Spring & Varick
Sts., New York.
Greaves, Klusman & Co., Cincinnati, O.
I. H. Johnson, Jr., Co., Inc., 337 N. 15th
St., Philadelphia, Pa.
Jones & Lamson Machine Co., Spring-
field, Vt.
R. K. Le Blond Machine Tool Co., Cin-
cinnati, O.
Lodge & Shipley Machine Tool Co., Cin-
cinnati, O.
New Haven Mfg. Co., New Haven, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.
Potter & Johnston Machine Co., Paw-
tucket, R. I.
F. E. Reed Co., Worcester, Mass.
Schumacher & Boye, Cincinnati, O.
Warner & Swasey Co., Cleveland, O.
F. E. Wells & Sons Co., Greenfield,
Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.
Marshall & Hushart Machinery Co., 62
S. Canal St., Chicago, Ill.
Motch & Merryweather Machinery Co.,
Cleveland, O.
Perkins & Frecker, 136 Liberty St., N. Y.
Vandeyck, Churchill Co., 8 Dey St., New
York.
C. C. Wormer Machinery Co., Detroit,
Mich.

Lathes, Chucking Turret—
American Tool Works Co., Cincinnati, O.
Bradford Machine Tool Co., Cincinnati.
Champion Tool Works Co., Cincinnati, O.
I. H. Johnson, Jr., Co., Inc., 337 N.
15th St., Philadelphia, Pa.
Jones & Lamson Machine Co., Spring-
field, Vt.
Lodge & Shipley Machine Tool Co., Cin-
cinnati, O.
Niles-Bement-Pond Co., 111 Broadway,
New York.
Potter & Johnston Machine Co., Paw-
tucket, R. I.
F. E. Reed Co., Worcester, Mass.
Schumacher & Boye, Cincinnati, O.
Lathes, Crank Shaft—
Schumacher & Boye, Cincinnati, O.
Tindel-Morris Co., Eddystone, Pa.
Lathes, Double Spindle—
J. J. McCabe, 14 Dey St., New York.

Lathes, Duplex Drill—
Garvin Machine Co., Spring & Varick
Sts., New York.

Lathes, Edging—
Blake & Johnson Co., Waterbury, Ct.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Lathes, Electrically Driv-

en—
American Tool Works Co., Cincinnati, O.

Lathes, Engine—
American Tool Works Co., Cincinnati, O.
American Watch Tool Co., Waltham,
Mass.

Automatic Machine Co., Bridgeport, Ct.
Wm. Barker & Co., Cincinnati, O.
W. F. & John Barnes Co., Rockford, Ill.
Bradford Machine Tool Co., Cincinnati.

Champion Tool Works Co., Cincinnati, O.
W. P. Davis Machine Co., Rochester,
N. Y.

Flather & Co., Inc., Nashua, N. H.
Garvin Machine Co., Spring & Varick
Sts., New York.

Greaves, Klusman & Co., Cincinnati, O.
Hendey Machine Co., Torrington, Ct.
I. H. Johnson, Jr., Co., Inc., 337 N. 15th
St., Philadelphia, Pa.

R. K. Le Blond Machine Tool Co., Cin-
cinnati, O.

Lodge & Shipley Machine Tool Co., Cin-
cinnati, O.

J. J. McCabe, 14 Dey St., New York.

Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

New Haven Mfg. Co., New Haven, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
Bahn-Carpenter Co., Cincinnati, O.

F. E. Reed Co., Worcester, Mass.
Rockford Drilling Machine Co., Rockford,
Ill.

Schumacher & Boye, Cincinnati, O.
Sebastian Lathe Co., Cincinnati, O.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.
Von Wyck Machine Tool Co., Cincinnati,
O.

Whitcomb-Blaisdell Machine Tool Co.,
Worcester, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Brown & Zortman Machinery Co., Pitts-
burgh, Pa.

Hannan & Finton, Springfield, Mass.
Hill, Clarke & Co., Boston, Mass.

Marshall & Hushart Machinery Co., 62
S. Canal St., Chicago, Ill.

McDowell & Co., Allegheny, Pa.

McDowell, Stocker & Co., 59 S. Canal St.,
Chicago, Ill.

Machinists Supply Co., 16-18 So. Canal
St., Chicago, Ill.

Edgar M. Moore & Co., Pittsburgh, Pa.

Motch & Merryweather Machinery Co.,
Cleveland, O.

New York Machinery Depot, 120 Broad-
way, New York.

Perkins & Frecker, 136 Liberty St., N. Y.

Prentiss Tool & Supply Co., 115 Liberty
St., New York.

L. F. Seyfert's Sons, Inc., 437-441 N. 3d
St., Philadelphia, Pa.

H. A. Stocker Machinery Co., 20 S. Clin-
ton St., Chicago, Ill.

Jacob Ullman, Buffalo, N. Y.

Vandeyck, Churchill Co., 8 Dey St., N. Y.

A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit,
Mich.

Lathes, Field Coil Wind-

ing—
Greaves, Klusman & Co., Cincinnati, O.

Lathes, Foot—
B. F. Barnes Co., Rockford, Ill.

W. F. & John Barnes Co., Rockford, Ill.

Champion Tool Works Co., Cincinnati, O.

W. P. Davis Machine Co., Rochester,
N. Y.

Garvin Machine Co., Spring & Varick Sts.,
New York.

Millers Falls Co., 23 Warren St., N. Y.

Niles-Bement-Pond Co., 111 Broadway,
New York.

F. E. Reed Co., Worcester, Mass.
Seneca Falls Mfg. Co., Seneca Falls, N. Y.

MERCHANTS.
Baird Machinery Co., Pittsburgh, Pa.
Hill, Clarke & Co., Boston, Mass.

Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Marshall & Hueschart Machinery Co., 62
S. Canal St., Chicago, Ill.

L. F. Seyfert's Sons, Inc., 437-441 N. 3d
St., Philadelphia, Pa.

A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

C. C. Wormer Machinery Co., Detroit,
Mich.

Lathes, Forming—
F. E. Reed Co., Worcester, Mass.

Warner & Swasey Co., Cleveland, O.

Lathes, Gap—
E. Harrington, Son & Co., 1508 Pennsylv-

ania Ave., Philadelphia, Pa.

I. H. Johnson, Jr., Co., Inc., 337 N. 15th
St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Oliver Machinery Co., Grand Rapids,
Mich.

Rahn-Carpenter Co., Cincinnati, O.

Sebastian Lathe Co., Cincinnati, O.

Lathes, Golf Head Form-
ing—

Kimball Bros. & Sprague, Brockton, Mass.

Lathes, Grinding Attach-
ments for—

Diamond Machine Co., Providence, R. I.

Lathes, Gun Barrel Turning
and Boring—

F. E. Reed Co., Worcester, Mass.

Lathes, Gun Turning and
Boring—

I. H. Johnson, Jr., Co., Inc., 337 N.
15th St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Lathes, Hand—

I. H. Johnson, Jr., Co., Inc., 337 N.
15th St., Philadelphia, Pa.

Seneca Falls Mfg. Co., Seneca Falls,
N. Y.

Lathes, Hand, Universal—
Brown & Sharpe Mfg. Co., Providence,
R. I.

Lathes, Ingot—

I. H. Johnson, Jr., Co., Inc., 337 N.
15th St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Lathes, Last—

Kimball Bros. & Sprague, Brockton, Mass.

Lathes, Locomotive Driving
Wheel—

Niles-Bement-Pond Co., 111 Broadway,
New York.

Lathes, Manual Training—
J. O. Blount Co., Everett, Mass.

Champion Tool Works Co., Cincinnati, O.

Oliver Machinery Co., Grand Rapids,
Mich.

F. E. Reed Co., Worcester, Mass.

Seneca Falls Mfg. Co., Seneca Falls,
N. Y.

F. E. Wells & Sons Co., Greenfield, Mass.

Lathes, Pit—
Wickes Bros., Saginaw, Mich.

Lathes, Precision—
American Watch Tool Co., Waltham,
Mass.

Pratt & Whitney Co., Hartford, Ct.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Waltham Machine Works, Waltham, Mass.

Lathes, Precision, Attach-
ments for Clock Machin-
ery—

American Watch Tool Co., Waltham,
Mass.

Lathes, Projectile Boring
and Turning—

American Tool Works Co., Cincinnati, O.

Bradford Machine Tool Co., Cincinnati, O.

I. H. Johnson, Jr., Co., Inc., 337 N.
15th St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Schumacher & Boye, Cincinnati, O.

Lathes, Pulley Turning—

American Tool Works Co., Cincinnati, O.

Cincinnati Pulley Machinery Co., Cincin-

nati, O.

Lodge & Shipley Machine Tool Co., Cin-

cinnati, O.

New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Schumacher & Boye, Cincinnati, O.

Lathes, Quick Change Gear—

American Tool Works Co., Cincinnati, O.

Flather & Co., Inc., Nashua, N. H.

Hendey Machine Co., Torrington, Ct.

Lodge & Shipley Machine Tool Co., Cin-

cinnati, O.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.

F. E. Reed Co., Worcester, Mass.

Schumacher & Boye, Cincinnati, O.

Von Wyck Machine Tool Co., Cincinnati,
O.

Whitcomb-Blaisdell Machine Tool Co.,
Worcester, Mass.

Lathes, Rapid Reduction—

American Tool Works Co., Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway,
New York.

F. E. Reed Co., Worcester, Mass.

Schumacher & Boye, Cincinnati, O.

Lathes, Roll—

American Tool Works Co., Cincinnati, O.

Birdsboro Steel Foundry & Machine Co.,
Birdsboro, Pa.

George A. Hogg I. & S. Foundry Co.,
Pittsburgh, Pa.

I. H. Johnson, Jr., Co., Inc., 337 N.
15th St., Philadelphia, Pa.

Lewis Foundry & Machine Co., Groveton,
Pa.

Mesta Machine Co., Pittsburgh, Pa.

Morgan Construction Co., Worcester, Mass.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Philadelphia Roll & Machine Co., 23d St.
& Washington Ave., Philadelphia, Pa.

United Engineering & Foundry Co., Pitts-

burgh, Pa.

MERCHANTS.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
 Wickes Bros., Saginaw, Mich.
 C. C. Wormer Machinery Co., Detroit, Mich.

Lathes, Roll Engraving—
 Gould & Eberhardt, Newark, N. J.

Lathes, Roll Polishing—
 Gould & Eberhardt, Newark, N. J.

Lathes, Screw Cutting.
Foot—

Champion Tool Works Co., Cincinnati, O.
 F. E. Reed Co., Worcester, Mass.
 Sebastian Lathe Co., Cincinnati, O.
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Lathes, Shaft Turning—
 American Tool Works Co., Cincinnati, O.
 Bradford Machine Tool Co., Cincinnati, O.
 E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.
 Lodge & Shipley Machine Tool Co., Cincinnati, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.

F. E. Reed Co., Worcester, Mass.
 Schumacher & Boye, Cincinnati, O.
 Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 C. C. Wormer Machinery Co., Detroit, Mich.

Lathes, Speed—

J. C. Blount, Everett, Mass.
 Diamond Machine Co., Providence, R. I.
 Dreeses Machine Tool Co., Cincinnati, O.
 Fox Machine Co., Grand Rapids, Mich.
 Garvin Machine Co., Spring & Varick Sts., New York.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Greaves, Klusman & Co., Cincinnati, O.
 I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Oliver Machinery Co., Grand Rapids, Mich.

F. E. Reed Co., Worcester, Mass.
 Sebastian Lathe Co., Cincinnati, O.
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Washburn Shops, Worcester, Mass.
 F. E. Wells & Sons Co., Greenfield, Mass.
 Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
 Hill, Clarke & Co., Boston, Mass.
 McDowell & Co., Allegheny, Pa.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Marshall & Hushart Machinery Co., 62 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

Perkins & Frecker, 136 Liberty St., N. Y.

Vandyck, Churchill Co., 8 Dey St., N. Y.
 A. D. White Machinery Co., 39-41 S.

Canal St., Chicago, Ill.
 C. C. Wormer Machinery Co., Detroit, Mich.

Lathes, Spindle Boring—
 American Tool Works Co., Cincinnati, O.

I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Schumacher & Boye, Cincinnati, O.

Lathes, Spinning—

Wm. Barker & Co., Cincinnati, O.
 Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.
 Diamond Machine Co., Providence, R. I.

Ferracute Machine Co., Bridgeton, N. J.
 Greaves, Klusman & Co., Cincinnati, O.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

E. J. Manville Mach. Co., Waterbury, Ct.
 Niles-Bement-Pond Co., 111 Broadway, New York.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Lathes, Strapping—

Springfield Mfg. Co., Bridgeport, Ct.

Lathes, Stud and Bolt—

Champion Tool Works Co., Cincinnati, O.
 F. E. Reed Co., Worcester, Mass.

Lathes, Tool Room—

American Tool Works Co., Cincinnati, O.
 Bradford Machine Tool Co., Cincinnati, O.

Champion Tool Works Co., Cincinnati, O.
 Flather & Co., Inc., Nashua, N. H.

Hendey Machine Co., Torrington, Ct.
 Lodge & Shipley Machine Tool Co., Cincinnati, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.
 F. E. Reed Co., Worcester, Mass.

Rockford Drilling Machine Co., Rockford, Ill.

Schumacher & Boye, Cincinnati, O.
 Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Sloan & Chace Mfg. Co., Ltd., Newark, N. J.

Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.

Lathes, Turret—

American Tool Works Co., Cincinnati, O.
 J. C. Blount Co., Everett, Mass.

Bradford Machine Tool Co., Cincinnati, O.
 Bullard Mach. Tool Co., Bridgeport, Ct.

Champion Tool Works Co., Cincinnati, O.
 W. P. Davis Machine Co., Rochester, N. Y.

Dreeses Machine Tool Co., Cincinnati, O.
 Flather & Co., Inc., Nashua, N. H.

Garvin Machine Co., Spring & Varick Sts., New York.

Greaves, Klusman & Co., Cincinnati, O.
 I. H. Johnson, Jr., Co., Inc., 337 N. 15th St., Philadelphia, Pa.

Jones & Lamson Machine Co., Springfield, Vt.

R. K. Le Blond Machine Tool Co., Cincinnati, O.

Lodge & Shipley Machine Tool Co., Cincinnati, O.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

New Haven Mfg. Co., New Haven, Ct.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Potter & Johnston Machine Co., Paw-
tucket, R. I.

Pratt & Whitney Co., Hartford, Ct.
Rahn-Carpenter Co., Cincinnati, O.
F. E. Reed Co., Worcester, Mass.
Schumacher & Boye, Cincinnati, O.
Warner & Swasey Co., Cleveland, O.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Hill, Clarke & Co., Boston, Mass.
Marshall & Hushart Machinery Co., 62
S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co.,
Cleveland, O.

Perkins & Frecker, 156 Liberty St., N. Y.
Prentiss Tool & Supply Co., 115 Liberty
St., New York.

Vandeyck, Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Lathes, Turret on Carriage—

American Tool Works Co., Cincinnati, O.
Bradford Machine Tool Co., Cincinnati, O.
Bullard Machine Tool Co., Bridgeport, Ct.
Champion Tool Works Co., Cincinnati, O.
Flather & Co., Inc., Nashua, N. H.
Greaves, Klusman & Co., Cincinnati, O.
Hendey Machine Co., Torrington, Ct.
I. H. Johnson, Jr., Co., Inc., 337 N. 15th
St., Philadelphia, Pa.

Lodge & Shipley Machine Tool Co., Cin-
cinnati, O.

F. E. Reed Co., Worcester, Mass.
Schumacher & Boye, Cincinnati, O.
Warner & Swasey Co., Cleveland, O.

Lathes, Vertical Turret—
Bullard Machine Tool Co., Bridgeport, Ct.

Lathes, Watchmakers—
American Watch Tool Co., Waltham,
Mass.

Lathes, Wire Die Reaming—
Morgan Construction Co., Worcester,
Mass.

Lathes, Wood Turning—
J. C. Blount Co., Everett, Mass.

Fox Machine Co., Grand Rapids, Mich.

Lathes, Worm Threading—
Automatic Machine Co., Bridgeport, Ct.

Launch Hardware—
W. & J. Tiebout, 118 Chambers St., New
York.

Laundry Drying Apparatus—
Massachusetts Fan Co., Watertown, Mass.

B. F. Sturtevant Co., Boston, Mass.

Laundry Irons—
(See Irons, Laundry.)

Lavatories—
Humphreys Mfg. Co., Mansfield, O.

Lavatory Fittings and Legs—
(See Plumbing Supplies.)

Lawn Fountains, Mowers.

Rakes, &c.—
(See Fountains, Mowers, Rakes, &c.)

Lawn Furniture—
(See Chairs and Settees, Lawn.)

Lawn Shears—
(See Shears, Grass and Lawn.)

Lead—
American Metal Co., 52 Broadway, N. Y.
Bethlehem Steel Co., So. Bethlehem, Pa.

Empire Metal Co., Syracuse, N. Y.
Hendricks Bros., 49 Cliff St., New York.
Theo. Hiertz Metal Co., St. Louis, Mo.
Merchant & Evans Co., Philadelphia, Pa.
Pittsburgh White Metal Co., Pittsburgh.
Sandoval Zinc Co., 122 N. Peoria St.,
Chicago, Ill.

Lead, Antimonial—
American Metal Co., 52 Broadway, N. Y.

Lead Car Seals—
Theo. Hiertz Metal Co., St. Louis, Mo.

Lead Covers, Wire—
(See Wires, Electrical.)

Lead Enamel Wire—
(See Wire, Electrical.)

Lead Pencils, Pipe—
(See Pencils, Pipe.)

Lead Pipe Machinery—
Farrell Foundry & Machine Co., Ansonia,
Ct.

Lead Sheet, Perforated—
Erdle Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 224
N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 44-47 Pearl St.,
New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Leaders, Cattle—
Covert Mfg. Co., Troy, N. Y.

Oneida Community, Kenwood, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Leads, Halter—
Covert Mfg. Co., Troy, N. Y.

Leads, Lumber Marking—
Jos. Dixon Crucible Co., Jersey City, N. J.

Leads, Sounding—
W. & J. Tiebout, 118 Chambers St., N. Y.

Leather Belt Lacing—
(See Belt Lacing, Leather.)

Leather Belting Strips—
(See Belting Strips.)

Leather Chips, Case Hard-
ening—
L. J. Barwood Co., Inc., Boston, Mass.

Leather, Clutch—
Graton & Knight Mfg. Co., Worcester,
Mass.

Leather, Friction—
Graton & Knight Mfg. Co., Worcester,
Mass.

Leather Harness—
Chas. A. Schieren & Co., 37 Ferry St.,
New York.

Leather, Hydraulic—
Chas. A. Schieren & Co., 37 Ferry St.,
New York.

Leather, Polishing—
N. Palmer & Co., Bridgeport, Ct.

Leather Scales—
(See Scales, Hide and Leather.)

Leather, Scrap—
Graton & Knight Mfg. Co., Worcester,
Mass.

Leather Shears—
(See Shears, Rubber and Leather.)

Leather Splitting Knives—
(See Knives, Machine.)

Leather, Switchboard—
Graton & Knight Mfg. Co., Worcester,
Mass.

Leather Washers—
(See Washers, Leather.)

Leathers, Pump—

American Well Works, Aurora, Ill.
Barnes Mfg. Co., Mansfield, O.
L. J. Barwood Co., Inc., Boston, Mass.
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Graton & Knight Mfg. Co., Worcester, Mass.

Humphries Mfg. Co., Mansfield, O.
Mast, Foos & Co., Springfield, O.
F. E. Myers & Bro., Ashland, O.
Charles L. Stevens & Co., Detroit, Mich.

Leg Irons—

(See Police Goods.)

Legs and Lavatory Fittings—
(See Plumbing Supplies.)

Legs, Counter—

S. Cheney & Son, Manlius, N. Y.
Wrightsville Hardware Co., Wrightsville, Pa.

Lemon Squeezers—

(See Squeezers, Lemon.)

Letter Binders and Openers—

(See Binders, Openers.)

Letter Plates Drop—

(See Plates, Drop Letter.)

Letter Scales—

(See Scales, Letter, Silver Plated.)

Letter Trays—

(See Trays, Wire, Paper and Letter.)

Letters and Figures, Aluminum—

Griswold Mfg. Co., Erie, Pa.
Letters and Figures, Brass—
Cleveland Galvanizing Works, Cleveland.

Letters and Figures, Burning Brand—

A. G. Butler, 284-286 Pearl St., N. Y.
Letters and Figures, Copper and Sign—

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
Eller Mfg. Co., Canton, O.

Letters and Figures, House, &c.—

American Railway Supply Co., 24 Park Place, New York.

American Ring Co., Waterbury, Ct.
Arcade Mfg. Co., Freeport, Ill.

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Chicago Spring Butt Co., Chicago, Ill.
Goodwin & Kintz Co., Winsted, Ct.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-95 Lafayette St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.
Taylor & Boggia Foundry Co., Cleveland, O.

W. & J. Tiebout, 118 Chambers St., N. Y.
Yale & Towne Mfg. Co., 9 Murray St., New York.

Letters and Figures, Pattern—

A. G. Butler, 284-286 Pearl St., New York.
Cleveland Galvanizing Works, Cleveland.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
S. Obermayer Co., Cincinnati, O.

Oliver Machinery Co., Grand Rapids, Mich.
Osborn Mfg. Co., Cleveland, O.

J. W. Paxson Co., Philadelphia, Pa.

St. Louis Electrottype Foundry, St. Louis.
Schwerdtle Stamp Co., Bridgeport, Ct.

J. D. Smith Foundry Supply Co., Cleveland, O.

Letters and Figures, Steel—

A. G. Butler, 284-286 Pearl St., New York.

Cleveland Galvanizing Works Co., Cleveland, O.

Hoggsou & Pettis Mfg. Co., New Haven, Ct.

E. Konigsow Stamping & Tool Works, Cleveland, O.

Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

R. Woodman Mfg. & Supply Co., Boston.

Level Signs—

Stanley Rule & Level Co., New Britain, Ct.

Levelers and Graders, Road—

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Leveling and Squaring Instruments—

(See Instruments, Leveling and Squaring.)

Leveling Machines, Sheet Metal—

United Engineering & Foundry Co., Pittsburgh, Pa.

Leveling Rods, Poles—

(See Rods, Poles.)

Levels, Adjustable Bench—

Goodell-Pratt Co., Greenfield, Mass.

Levels and Plumbs—

(See Plumbs and Levels.)

Levels, Bit and Square—

Stanley Rule & Level Co., New Britain, Ct.

Levels, Cross—

L. S. Starrett Co., Athol, Mass.

Levels, Engineers—

Keuffel & Esser Co., 127 Fulton St., N. Y.

Levels, Hand Bench—

O. E. Jennings & Co., 42 Murray St., New York.

Levels, Iron—

Henry Diston & Sons, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.

Keuffel & Esser Co., 127 Fulton St., N. Y.
Millers Falls Co., 28 Warren St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.
L. S. Starrett Co., Athol, Mass.

Levels, Machinists—

Baker, McMillen Co., Akron, O.
Chapin-Stevens Co., Pine Meadow, Ct.

Henry Diston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., N. Y.

L. S. Starrett Co., Athol, Mass.

Levels, Masons—

Baker, McMillen Co., Akron, O.
Chapin-Stevens Co., Pine Meadow, Ct.

Levels, Paper Hangers—

Webster & Perks Tool Co., Springfield, O.

Levels, Plane Tables, Sextants, &c.—

(See Surveying Instruments.)

Levels, Plumbers—

Goodell-Pratt Co., Greenfield, Mass.
L. S. Starrett Co., Athol, Mass.

Levels, Pocket—

Baker, McMillen Co., Akron, O.

- Chapin-Stephens Co., Pine Meadow, Ct.
 Henry Disston & Sons, Philadelphia, Pa.
 Goodell-Pratt Co., Greenfield, Mass.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 Stanley Rule & Level Co., New Britain, Ct.
 L. S. Starrett Co., Athol, Mass.
 Tower & Lyon Co., 95 Chambers St., New York.
- Levels, Railroad Track—**
 Sheffield Car Co., Three Rivers, Mich.
- Levels, Shafting—**
 Henry Disston & Sons, Philadelphia, Pa.
 Goodell-Pratt Co., Greenfield, Mass.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 L. S. Starrett Co., Athol, Mass.
- Levels, Y—**
 Keuffel & Esser Co., 127 Fulton St., N. Y.
- Lever, Door Bell—**
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
- Lever, Machine—**
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- Standard Welding Co., Cleveland, O.**
- Lewis, Stone—**
 Trow & Holden, Barre, Vt.
- Lids, Journal Box, Pressed Steel—**
 Union Spring & Mfg. Co., New Kensington, Pa.
- Lift Pumps—**
 (See Pumps, Lift.)
- Lifters and Drainers, Cloths—**
 Andrews Wire & Iron Works, Rockford, Ill.
- Lifters, Crown and Seal Stopper—**
 Erie Specialty Co., Erie, Pa.
- Lifters, Drop Press and Hammer—**
 Miner & Peck Mfg. Co., New Haven, Ct.
 George A. Ohl & Co., Newark, N. J.
- Lifters, Pan—**
 Adell Bros. Mfg. Co., Orange, Mass.
- Lifters, Sash—**
 Arcade Mfg. Co., Freeport, Ill.
 Griffin Mfg. Co., Erie, Pa.
 H. B. Ives Co., New Haven, Ct.
 Lawrence Bros., Sterling, Ill.
 McKinney Mfg. Co., Allegheny, Pa.
 National Mfg. Co., Sterling, Ill.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 Shelby Spring Hinge Co., Shelby, O.
 Stanley Works, New Britain, Ct.
 Taylor & Boggis Foundry Co., Cleveland.
 Yale & Towne Mfg. Co., 9 Murray St., New York.
- Lifters, Shutter—**
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
- Lifters, Stove Lid—**
 Arcade Mfg. Co., Freeport, Ill.
 Columbia Grey Iron Co., Columbia, Pa.
 Fanner Mfg. Co., Cleveland, O.
 Griswold Mfg. Co., Erie, Pa.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Wrightsville Hardware Co., Wrightsville, Pa.
- Lifters, Transom—**
 Boston Pressed Metal Co., Worcester, Mass.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 Yale & Towne Mfg. Co., 9 Murray St., New York.
- Lifters, Trunk—**
 J. H. Sessions & Son, Bristol, Ct.
- Lifters, Window Screen—**
 Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.
- Lifting Handles—**
 (See Handles.)
- Lifts, Acid—**
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
- Lifts, Invalid—**
 Storm Mfg. Co., Newark, N. J.
- Lifts, Sidewalk—**
 (See Hoists, Sidewalk.)
- Light Machinery—**
 (See Model and Experimental Work.)
- Lighters, Gas, Electric—**
 W. R. Ostrander & Co., 22 Day St., N. Y.
- Lighting Systems, Gasoline—**
 American Gas Machine Co., Albert Lea, Minn.
 Royal Gas Light Co., 215 E. Kinzie St., Chicago, Ill.
- Lightning Arresters—**
 (See Arresters, Lightning.)
- Lightning Rod Fixtures—**
 Cleveland Galvanizing Works, Cleveland.
- Lights, Side and Deck—**
 W. & J. Tiebout, 118 Chambers St., N. Y.
- Lights, Sidewalk—**
 (See Iron Work, Builders.)
- Lignumvitae, in Log—**
 Boston & Lockport Block Co., Boston.
- Limestone—**
 Columbus Iron & Steel Co., Columbus, O.
- Limestone, Crushed—**
 Reed F. Blair & Co., Pittsburgh, Pa.
- Line Cleats, Grips—**
 (See Cleats, Grips.)
- Liners, Locomotive Guide—**
 L. S. Starrett Co., Athol, Mass.
- Liners, Section—**
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 L. S. Starrett Co., Athol, Mass.
- Lines, Chalk, Masons', &c.—**
 Samson Cordage Works, Boston, Mass.
 Silver Lake Co., Boston, Mass.
 Turner & Stanton Co., Norwich, Ct.
- Lines, Clothes, Cotton, &c.—**
 Estes Mills, Fall River, Mass.
 Samson Cordage Works, Boston, Mass.
 Silver Lake Co., Boston, Mass.
 Turner & Stanton Co., Norwich, Ct.
- Lines, Clothes, Manila and Sisal—**
 Plymouth Cordage Co., North Plymouth, Mass.
- Lines, Clothes, Wire—**
 American Steel & Wire Co., The Rookery, Chicago, Ill.
- Dufur & Co., Baltimore, Md.
 Parker Wire Goods Co., Worcester, Mass.
 Williamsport Wire Rope Co., Williamsport, Pa.

Wire Goods Co., Worcester, Mass.
 Wright Wire Co., Worcester, Mass.
Lines, Fishing—
 Dame, Stoddard & Co., Boston, Mass.
Lines, Garden—
 Samson Cordage Works, Boston, Mass.
 Silver Lake Co., Boston, Mass.
Lines, Tent and Awning—
 Silver Lake Co., Boston, Mass.
Lines, Towing—
 New York Cordage Co., 83-85 Wall St., N. Y.
Linings, Cement Rotary Kiln— (See Bricks.)
Linings, Cupola—
 Hayes Run Fire Brick Co., Orris, Pa.
 Northern Engineering Works, Detroit, Mich.
 S. Obermayer Co., Cincinnati, O.
 J. W. Paxson Co., Philadelphia, Pa.
 M. D. Valentine & Bro. Co., Woodbridge, N. J.
 Whiting Foundry Equipment Co., Harvey, Ill.
Linings, Dress, Crinoline—
 I. E. Palmer, Middletown, Ct.
Linings, Fire Place—
 Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
Linings, Flue—
 Hayes Run Fire Brick Co., Orris, Pa.
Linings, Stove—
 Harbison-Walker Refractories Co., Pittsburgh, Pa.
 Hayes Run Fire Brick Co., Orris, Pa.
 Ostrander Fire Brick Co., Troy, N. Y.
Link Belting, Chain— (See Belting, Chain Link.)
Links and Shapes, Organ, Leather—
 L. J. Barwood Co., Inc., Boston, Mass.
Links, Bed—
 Wm. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
 E. H. Titchener & Co., Binghamton, N. Y.
Links, Car Coupling—
 Keystone Drop Forge Works, Chester, Pa.
 Pittsburgh Forge & Iron Co., Pittsburgh, Pa.
Standard Chain Co., Pittsburgh, Pa.
Links, Chain— (See Chain Links.)
Links, Flexible—
 M. Lanz & Sons, Pittsburgh, Pa.
Links, Repair and Lap—
 Beecher Draught Spring Co., New Haven, Bridgeport Chain Co., Bridgeport, Ct.
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Thomas Laughlin Co., Portland, Me.
 Oneida Community, Kenwood, N. Y.
 Smith & Hemenway Co., 108-110 Duane St., New York.
Standard Chain Co., Pittsburgh, Pa.
 W. & J. Tiebout, 118 Chambers St., N. Y.
 Wilcox, Crittenden & Co., Inc., Middletown, Ct.
Linoleum Machinery—
 Farrel Foundry & Mach. Co., Ansonia, Ct.
 Thomas Prosser & Son, 26 Platt St., N. Y.
Linotype Molds—
 Empire Metal Co., Syracuse, N. Y.
 Theo. Hertz Metal Co., St. Louis, Mo.
 Merchant & Evans Co., Philadelphia, Pa.
 Pittsburgh White Metal Co., Pittsburgh.

Lintles— (See Architectural Sheet Metal Work.)
Liquid Soap Dispensers— (See Dispensers, Liquid Soap.)
Loaders, Hay— (See Haying Tools.)
Loaders, Horse, Car—
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
Loaders, Log—
 Browning Engineering Co., Cleveland, O.
Lock and Coasters, Combined, Bicycle—
 Lock Corner Cutters— (See Cutters, Lock Corner.)
Lock, Latch, Hasp and Staple, Combined—
 Smith & Hemenway Co., 108-110 Duane St., New York.
Lock Nuts— (See Nuts, Lock.)
Lockers, Office, Gymnasium, Store and Shop—
 Buffalo Wire Works Co., Buffalo, N. Y.
 W. J. Clark Co., Salem, O.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 Durand Steel Locker Co., American Trust Bldg., Chicago, Ill.
 Gem Mfg. Co., Boston, Mass.
 Glen Mfg. Co., Ellwood City, Pa.
 Hart & Cooley Co., New Britain, Ct.
 Manufacturing Equipment & Engineering Co., Boston, Mass.
 Michigan Wire Cloth Co., Detroit, Mich.
 Terrill's Equipment Co., Grand Rapids, Mich.
 Van Dorn Iron Works Co., Cleveland, O.
 Wright Wire Co., Worcester, Mass.
Locks and Handles, Store Door— (See Handles and Locks, Store Door.)
Locks and Latches, Barn Door—
 Arcade Mfg. Co., Freeport, Ill.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Lawrence Bros., Sterling, Ill.
 National Mfg. Co., Sterling, Ill.
Locks and Latches, Ship—
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 W. & J. Tiebout, 118 Chambers St., N. Y.
Locks and Latches, Sliding Door—
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Lane Bros. Co., Poughkeepsie, N. Y.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 Yale & Towne Mfg. Co., 9 Murray St., N. Y.
Locks and Trimmings, Car—
 H. B. Ives Co., New Haven, Ct.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
Locks, Automobile and Carriage—
 Walter W. Woodruff & Sons Co., Mount Carmel, Ct.
Locks, Bank—
 Yale & Towne Mfg. Co., 9 Murray St., N. Y.
Locks, Basement Window—
 Shelby Spring Hinge Co., Shelby, O.
Locks, Bicycle—
 Ames Sword Co., Chicopee, Mass.
 Eagle Lock Co., Terryville, Ct.

John H. Graham & Co., 115 Chambers St., New York.
 Miller Lock Co., Philadelphia, Pa.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Box—
 Acme Steel Goods Co., 2834-2840 Archer Ave., Chicago, Ill.

Locks, Buckle—
 Eagle Lock Co., Terryville, Ct.
Locks, Cabinet—
 Eagle Lock Co., Terryville, Ct.
 Miller Lock Co., Philadelphia, Pa.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Car Window—
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Locks, Chest—
 Miller Lock Co., Philadelphia, Pa.
Locks, Combination Post Office Box—

Eagle Lock Co., Terryville, Ct.
 Miller Lock Co., Philadelphia, Pa.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Cupboard—
 Miller Lock Co., Philadelphia, Pa.
Locks, Dial, Fireproof Safe—
 Eagle Lock Co., Terryville, Ct.

Locks, Dog Collar—
 (See Locks, Pad.)

Locks, Elevator Door—
 Chisholm & Moore Mfg. Co., Cleveland.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Elevator Safety—
 Salem Elevator Works, Salem, Mass.

Locks, Factory and Mill—
 Eagle Lock Co., Terryville, Ct.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Keyless—
 Risdon Iron Works, Inc., Waterbury, Ct.

Locks, Latches, &c.—
 Eagle Lock Co., Terryville, Ct.
 Miller Lock Co., Philadelphia, Pa.
 National Mfg. Co., Sterling, Ill.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Safety Door Hanger Co., Ashland, O.
 Taylor & Boggis Foundry Co., Cleveland.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Locker—
 Eagle Lock Co., Terryville, Ct.
 Miller Lock Co., Philadelphia, Pa.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Masterkeyed—
 Eagle Lock Co., Terryville, Ct.
 Miller Lock Co., Philadelphia, Pa.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Pad—
 Ames Sword Co., Chicopee, Mass.
 Eagle Lock Co., Terryville, Ct.
 Miller Lock Co., Philadelphia, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Smith & Egge Mfg. Co., Bridgeport, Ct.
 W. & J. Tiebout, 118 Chambers St., N. Y.
 Tower & Lyon Co., 95 Chambers St., New York.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Pad, Carded Assortments—
 Miller Lock Co., Philadelphia, Pa.

Locks, Prison—
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Railroad Switch—
 Eagle Lock Co., Terryville, Ct.
 Miller Lock Co., Philadelphia, Pa.
 Walter A. Zelnicker Supply Co., St. Louis.

Locks, Safe Deposit—
 Eagle Lock Co., Terryville, Ct.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Sash—
 Caldwell Mfg. Co., Rochester, N. Y.
 H. B. Ives Co., New Haven, Ct.
 National Mfg. Co., Sterling, Ill.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Pullman Mfg. Co., Rochester, N. Y.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 Shelby Spring Hinge Co., Shelby, O.
 Taylor & Boggis Foundry Co., Cleveland.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locks, Sash and Ventilating—
 H. B. Ives Co., New Haven, Ct.
 Lawson Mfg. Co., 40 Dearborn St., Chicago, Ill.

Locks, Sewing Machine—
 Eagle Lock Co., Terryville, Ct.
Locks, Trunk, Case and Bag—

Eagle Lock Co., Terryville, Ct.
 R. C. Jenkinson & Co., Newark, N. J.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 Yale & Towne Mfg. Co., 9 Murray St., New York.

Locomotive Blocks, Reflectors, Transfer Tables—
 (See Blocks, Reflectors, Transfer Tables.)

Locomotive Clocks—
 (See Clocks, Locomotive.)

Locomotive Jacket Steel Sheets—
 American Sheet and Tin Plate Co., Pittsburgh, Pa.

Locomotive Liners—
 L. S. Starrett Co., Athol, Mass.

Locomotive Netting—
 (See Netting, Wire.)

Locomotive Spark Arrester Plates—

Erdle Perforating Co., Rochester, N. Y.
 Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
 Charles Mundt & Sons, 441 Pearl St., New York.

W. S. Tyler Co., Cleveland, O.

Locomotive Works Machinery—
 Cincinnati Shaper Co., Cincinnati, O.
 Hilles & Jones Co., Wilmington, Del.
 Niles-Bement-Pond Co., 111 Broadway, New York.

Locomotives, Electric—

General Electric Co., Schenectady, N. Y.
C. W. Hunt Co., West New Brighton,
N. Y.

Arthur Koppel Co., Pittsburgh, Pa.
Wellman-Seaver-Morgan Co., Cleveland.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Ernst Wiener Co., Broad & Beaver Sts.,
New York.

Locomotives, Gasoline—

Sheffield Car Co., Three Rivers, Mich.

Locomotives, Industrial—

Davenport Locomotive Works, Davenport,
Ia.

Locomotives, Steam—

Atlas Car & Mfg. Co., Cleveland, O.
Davenport Locomotive Works, Davenport,
Ia.

Arthur Koppel, Pittsburgh, Pa.
Ernst Wiener Co., Broad & Beaver Sts.,
New York.

MERCHANTS.

Carlin Machinery & Supply Co., Inc.,
Allegheny, Pa.

Thomas P. Conard & Co., 119 S. 4th St.,
Philadelphia, Pa.

Dallett & Co., Harrison Bldg., Philadel-
phia, Pa.

Barclay M. Everson, Pittsburgh, Pa.

Hyde Bros. & Co., Pittsburgh, Pa.

Ernest Law & Co., 15th & Market Sts.,
Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

L. F. Seyfert's Sons, Inc., 437-441 N. 3d
St., Philadelphia, Pa.

Southern Iron & Equipment Co., Atlanta,
Ga.

Wickes Bros., Saginaw, Mich.

Lodge Bells—

(See Bells, Altar and Lodge.)

Log and Lumber Rolls—

Lane Mfg. Co., Montpelier, Vt.

Log and Lumber Tools—

Browning Engineering Co., Cleveland, O.

Kilborn & Bishop Co., New Haven, Ct.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Wickes Bros., Saginaw, Mich.

Log Binders, Chains—

(See Binders, Chains.)

Log Hauls—

Broderick & Bascom Rope Co., St. Louis.

Jeffrey Mfg. Co., Columbus, O.

Lane Mfg. Co., Montpelier, Vt.

A. Leschen & Sons Rope Co., St. Louis.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

Soule Steam Feed Works, Meridian, Miss.

Wickes Bros., Saginaw, Mich.

Woodward, Wight & Co., Ltd., New Or-
leans, La.

Log Jacks—

(See Jacks, Log.)

Log Turners—

Wickes Bros., Saginaw, Mich.

Log Unloaders—

Lane Mfg. Co., Montpelier, Vt.

Lorains and Driving Tools—

(See Tools, Lumber, also Log and Lum-
ber Tools.)

Logs, Marine—

Riggs & Bro., 310 Market St., Philadel-
phia, Pa.

Loom Bolts—

(See Bolts, Loom.)

Loom Repair Parts—

Boston Pressed Metal Co., Worcester,
Mass.

Homer F. Livermore, Boston, Mass.

Looms, Duck—

Poole Engineering & Machine Co., Balti-
more, Md.

Looms and Squares, Wire—

R. C. Jenkinson & Co., Newark, N. J.

Looms, Asbestos—

Philadelphia Steel & Wire Co., 525 Com-
merce St., Philadelphia, Pa.

Looms, Bag and Case—

Eagle Lock Co., Terryville, Ct.

Looms, Footman—

North & Judd Mfg. Co., New Britain, Ct.

Looms, Furniture—

(See Staples and Looms, Furniture.)

Looms, Garment Hanger—

(See Bars and Looms.)

Looms, Snap—

North & Judd Mfg. Co., New Britain, Ct.

Looms, Trunk—

J. H. Sessions & Son, Bristol, Ct.

Lubricants—

(See also Grease, Axle.)

Jos. Dixon Crucible Co., Jersey City, N. J.

Robins Conveying Belt Co., 17-22 Park
Row, New York.

Lubricants, Automobile—

Joseph Dixon Crucible Co., Jersey City,
N. J.

Lubricants, Gear—

Joseph Dixon Crucible Co., Jersey City,
N. J.

Lubricants, Rope—

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Lubricants, Wire Rope—

Broderick & Bascom Rope Co., St. Louis.

Joseph Dixon Crucible Co., Jersey City,
N. J.

A. Leschen & Sons Rope Co., St. Louis.

Lubricators—

Charles H. Bealy & Co., 15-21 Clinton St.,
Chicago, Ill.

Crosby Steam Gage & Valve Co., Boston.

Eynon-Evans Mfg. Co., 1507 Clearfield
St., Philadelphia, Pa.

Gem Mfg. Co., Pittsburgh, Pa.

Lunkenheimer Co., Cincinnati, O.

National Sewing Machine Co., Belvidere,
Ill.

Wm. Powell Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

**Lubricators, Automobile Me-
chanical—**

Lunkenheimer Co., Cincinnati, O.

Lubricators, Cylinder—

Lunkenheimer Co., Cincinnati, O.

Wm. Powell Co., Cincinnati, O.

**Lubricators, Mechanical
Pump—**

Lunkenheimer Co., Cincinnati, O.

**Lugs or Clamps, Automobile
Tire—**

Clark Novelty Co., Rochester, N. Y.

Lugs, Tank—

M. Lanz & Sons, Pittsburgh, Pa.

Racine Tank Lug Co., Racine, Wis.

Lumber—

C. C. Putnam & Son, Putnamville, Vt.

Lumber Crayons—

(See Crayons, Lumber, Marble, Metal
Workers, &c.)

Lumber, Dressed—

C. C. Putnam & Son, Putnamville, Vt.

Lumber Tools, &c.—

(See Tools, &c.)

Machetes—

Henry Diston & Sons, Philadelphia, Pa.

Machine Bolts—

(See Bolts, Machine.)

Machine Handles, Knives, Levers, Screws—

(See Handles, Knives, Levers, Screws.)

Machine Parts, Hardened and Ground—

(See Screw Machine Products, Hardened and Ground.)

Machinery is classified under the headings descriptive of character thereof.**Machinery Dealers—**

Baird Machinery Co., Pittsburgh, Pa.

W. R. Beatty Machinery & Equipment Co., Pittsburgh, Pa.

Charles Behlen, 72 Trinity Pl., New York.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

C. I. F. Co., 5-11 Broadway, New York.

Central Station Improvement Co., Monadnock Block, Chicago, Ill.

Chandler & Farquhar Co., Boston, Mass.

Chicago House Wrecking Co., W. 35th & Iron Sts., Chicago, Ill.

Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.

W. P. Davis Mach. Co., Rochester, N. Y.

Eagle Metal & Supply Co., Brooklyn, N. Y.

Barclay M. Everson, Pittsburgh, Pa.

Garvin Machine Co., Spring & Varick Sts., New York.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Hannan & Finton, Springfield, Mass.

John Henning & Son, 1016-1022 E. Susquehanna Ave., Philadelphia, Pa.

Hill, Clarke & Co., Boston, Mass.

Hirsch Rolling Mill Co., St. Louis, Mo.

Henry A. Hittner's Sons Co., Huntingdon and Aramingo Aves., Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Irring Mfg. & Tool Co., 157 Chambers St., New York.

W. C. Johnson & Sons Machinery Co., St. Louis, Mo.

J. J. McCabe, 14 Dey St., New York.

McDowell & Co., Allegheny, Pa.

McDowell, Stocker & Co., 59-61 So. Canal St., Chicago, Ill.

Machinists Supply Co., 16-18 So. Canal St., Chicago, Ill.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Marshall & Huchart Machinery Co., 62-64 So. Canal St., Chicago, Ill.

Henry J. Miller's Sons, Bridgewater, Mass.

Edgar M. Moore & Co., Pittsburgh, Pa.

Motch & Merryweather Machinery Co., Cleveland, O.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

New York Machinery Depot, 120 Broadway, New York.

Niles-Bement-Pond Co., 111 Broadway, New York.

Northern Engineering Works, Detroit, Mich.

Perkins & Frecker, 136 Liberty St., N. Y.

Peterson Construction Co., Pittsburgh, Pa.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Power Equipment Co., Fisher Bldg., Chicago, Ill.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

W. L. Sargent, Fitchburg, Mass.

Schuchardt & Schutte, 136 Liberty St., New York.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

L. F. Seyfert's Sons, Inc., 437-441 No. 3d St., Philadelphia, Pa.

Shook & Fletcher, Birmingham, Ala.

H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.

Thomas & Lowe Machinery Co., Providence, R. I.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Jacob Ullman, Buffalo, N. Y.

Vandyck, Churchill Co., 8 Dey St., N. Y.

Walsh's Sons & Co., Newark, N. J.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Woodward, Wight & Co., Ltd., New Orleans, La.

C. C. Wormer Machy. Co., Detroit, Mich.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Machinery, Electric Mining—

General Electric Co., Schenectady, N. Y.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Machinery, Mining—

(See Mining Machinery.)

Machinery, Second Hand—

(See Second Hand Machinery.)

Machines, Bench Center—

(See Testing Machines, Bench Center.)

Machines, Boring—

(See Mills, Boring and Turning. See also Boring Machines, Carpenters.)

Machines, Calculating—

(See Calculating Machines.)

Machines, Coffee—

(See Percolators, Coffee.)

Machines, Painting and Whitewashing—

(See Paint and Whitewash Spraying Machines.)

Machines, Reckoning—

(See Adding, Computing and Reckoning Machines.)

Machines, Washing—

(See Washing Machines.)

Machinists' Clamps—

(See Clamps, Steel.)

Machinists' Clamps, Rules, Scrapers, Squares—

(See Clamps, Rules, Scrapers, Squares.)

Magnesite—

Harrison-Walker Refractories Co., Pittsburgh, Pa.

Magnesium—

American Refractories Co., Joliet, Ill.

Roessler & Hasselacher Chemical Co., 100 William St., New York.

Magnesium Copper—
Roessler & Hasslacher Chemical Co., 100
William St., New York.

Magnet Hammers—
(See Hammers.)

Magnet Wire—
(See Wires, Electrical.)

Magnetic Separators—
(See Separators, Magnetic.)

Magnets—
Northern Engineering Works, Detroit
Mich.
Schuchardt & Schutte, 136 Liberty St.,
New York.

Magnets, Lifting—
Electric Controller & Supply Co., Cleve-
land, O.

Northern Engineering Works, -Detroit,
Mich.

Mail Boxes, Catchers—
(See Boxes, Catchers.)

**Malleable Clevises, Hooks
and Eyes, Rings—**
(See Clevises, Hooks and Eyes, Rings.)

**Malleable Iron Castings.
Hinges—**
(See Castings, Hinges.)

Mallets, Calking—
W. & J. Tiebout, 118 Chambers St., N. Y.

Mallets, Copper—
U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Mallets, Rawhide Capped—
New Process Raw Hide Co., Syracuse,
N. Y.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Mallets, Rubber—
New York Belting & Packing Co., 91-93
Chambers St., New York.

Osborn Mfg. Co., Cleveland, O.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.

Mallets, Wooden—
Baker, McMillen Co., Akron, O.

Boston & Lockport Block Co., Boston.

W. R. Hartigan, Collinsville, Ct.

Osborn Mfg. Co., Cleveland, O.

I. W. Paxson Co., Philadelphia, Pa.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Piqua Handle & Mfg. Co., Piqua, O.

John Sommer's Son, Newark, N. J.

Stanley Rule & Level Co., New Britain, Ct.

Union Hardware Co., Torrington, Ct.

Waite, Ranlet & Co., Boston, Mass.

Man Heads—
E. Keeler Co., Williamsport, Pa.

Lukens Iron & Steel Co., Coatesville, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Man Hole Boring Machines—
(See Boring Machines, Man Hole.)

Man Hole Castings—
(See Castings, Man Hole, Cistern, Sewer,
Etc.)

Mandrels—
E. C. Atkins & Co., Indianapolis, Ind.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

Cleveland Twist Drill Co., Cleveland, O.

Henry Diston & Sons, Philadelphia, Pa.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

W. H. Nicholson & Co., Wilkes-Barre,
Pa.

B. B. Noyes & Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

Western Tool & Mfg. Co., Springfield, O.

Whitman & Barnes Mfg. Co., Chicago,
Mass.

Willey & Russell Mfg. Co., Greenfield,
Mass.

**Mandrels, Lathe Expand-
ing—**

Earle Gear & Machine Co., Stenton &
Wyoming Ave., Philadelphia, Pa.

Wm. G. Le Count, East Norwalk, Ct.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

W. H. Nicholson & Co., Wilkes-Barre,
Pa.

Sloan & Chace Mfg. Co., Ltd., Newark,
N. J.

Western Tool & Mfg. Co., Springfield, O.

Mandrels, Saw—
(See Arbors, Circular Saw.)

Mane Combs—
(See Combs, Mane and Tail.)

Manganese—
Goldschmidt Thermit Co., 43 Exchange
Pl., New York.

Roessler & Hasslacher Chemical Co., 100
William St., New York.

Western Foundry Supply Co., Cliff and
John Sts., New York.

**Manganese Bronze Cast-
ings, Forgings—**
(See Castings, Forgings, Bronze.)

Manganese Bronze Ingots—
(See Ingots.)

Manganese Copper—
Roessler & Hasslacher Chemical Co., 100
William St., New York.

Western Foundry Supply Co., Cliff and
John Sts., New York.

**Manganese Silicon, Electro-
lytic—**

Roessler & Hasslacher Chemical Co., 100
William St., New York.

Mangers, Feed—
S. Cheney & Son, Manlius, N. Y.

Nimmo Fence & Wire Works Co., Nor-
wood, O.

Novelty Iron Works, Sterling, Ill.

Stuart & Peterson Co., Burlington, N. J.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst Co., Norfolk, Va.

Manicure Goods—
H. C. Cook Co., Ansonia, Ct.

Livright Bros., Philadelphia, Pa.

Park Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls,
R. I.

Nicholson File Co., Providence, R. I.

Manicure Sets—
(See Sets, Silver Plated.)

Mantel Grates—
(See Grates.)

**Manual Training School
Outfits—**
(See School Outfits, Manual Training.)

Manufacturing Sites—
Frisco System (M. Schuler), St. Louis,
Mo.

J. H. Hillman & Son, Pittsburgh, Pa.

Industrial Location Bureau, Bridgeport,
Ct.

Koppel Land Co., Pittsburgh, Pa.

Manure Forks, Hooks,Pumps.
(See Forks, Hooks, Pumps.)**Marine Cableways—**

(See Cableways, Marine.)

Marine Clocks—

(See Clocks, Marine.)

Marine Hardware—

Delaware Marine Supply Mfg. Co., Wilmington, Del.

Thomas Laughlin Co., Portland, Me.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Marine Railways—

Poole Engineering & Machine Co., Baltimore, Md.

Markers, Clapboard—

Goodell-Fratt Co., Greenfield, Mass.

Otis A. Smith, Rockfall, Ct.

Stanley Rule & Level Co., New Britain, Ct.

Markers, Corn and Row—

Bateman Mfg. Co., Grenloch, N. J.

Markers, Ice—

(See Ice Harvesting Tools.)

Markers, Tire—

Wiley & Russell Mfg. Co., Greenfield, Mass.

Market Wire—

(See Wire, Iron and Steel, &c.)

Marking Gauges—

(See Gauges.)

Marlin Spikes—

(See Spikes, Marlin, Pickers, &c.)

Masheys, Vegetable, &c.—

Columbia Grey Iron Co., Columbia, Pa.

Erie Specialty Co., Erie, Pa.

Goodell Co., Antrim, N. H.

Wm. R. Hartigan, Collinsville, Ct.

Kilbourne Mfg. Co., Troy, N. Y.

John Sommer's Son, Newark, N. J.

Masons' Kitchen Articles, Wire—

(See Lines, Chalk, &c.)

Masons' Chalk, &c., Lines—

(See Lines, Chalk, &c.)

Massage Machines—

Coates Clipper Mfg. Co., Worcester, Mass.

Match Boxes, Safes—

(See Boxes, Safes.)

Match Box Holders—

(See Holders, Match Box.)

Matchers, Wood—

Lane Mfg. Co., Montpelier, Vt.

Material, Old—

Birdsboro Iron & Steel Breaking Co., Ltd., Birdsboro, Pa.

M. J. & M. Blake, 97 19th Ave., N. Y.

Hole, Ross & Co., Pittsburgh, Pa.

Thomas F. Conrad & Co., 119 S. 4th St., Philadelphia, Pa.

Continental Iron & Steel Co., 66 Broad St., New York.

Robert M. Cunliffe, 11th St. and Washington Ave., Philadelphia, Pa.

Dallett & Co., Harrison Bldg., Philadelphia, Pa.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Alfred T. Green, Chester, Pa.

John Henning & Son, 1016-1022 E. Susquehanna Ave., Philadelphia, Pa.

Hirsch Rolling Mill Co., St. Louis, Mo.

H. A. Hittner's Sons Co., Huntington St. and Aramingo Ave., Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Hyde Bros. & Co., Pittsburgh, Pa.

Jos. Joseph & Bros. Co., Cincinnati, O.

Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.

Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

E. B. Leaf & Co., Real Estate Trust Bldg., Philadelphia, Pa.

Jno. Leonard & Co., 220 Broadway, N. Y.

Henry Lewis & Co., 25 So. 15th St., Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

J. J. Mohr, 131 S. 4th St., Philadelphia, Pa.

Edgar M. Moore & Co., Pittsburgh, Pa.

Edmund W. Mudge & Co., Pittsburgh, Pa.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Pilling & Crane, Girard Bldg., Philadelphia, Pa.

Plitt Co., Real Estate Trust Bldg., Philadelphia, Pa.

Potts & Wittman, North American Bldg., Philadelphia, Pa.

Richardson & Co., Inc., Pittsburgh, Pa.

M. H. Rogers, Bridgeport, Ct.

Frank Samuel, 15th and Market Sts., Philadelphia, Pa.

Jos. Schonthal Iron Co., Columbus, O.

Shook & Fletcher, Birmingham, Ala.

Morton B. Smith Co., 243 Front St., N. Y.

Jacob Ullman, Buffalo, N. Y.

Walsh's Sons & Co., Newark, N. J.

Wheeler, Mifflin & Co., Fidelity Bldg., Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.

E. H. Wilson & Co., 112 No. Broad St., Philadelphia, Pa.

L. & R. Wister & Co., Bullitt Bldg., Philadelphia, Pa.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Mats and Matting, Rubber—

New York Belting & Packing Co., 91-93 Chambers St., New York.

Springfield Tire & Rubber Co., Springfield, O.

Mats and Matting, Wire

and Steel—

Acme Steel Goods Co., 2834-2840 Archer Ave., Chicago, Ill.

Buffalo Wire Works Co., Buffalo, N. Y.

Clinton Wire Cloth Co., Clinton, Mass.

Dufur & Co., Baltimore, Md.

Estey Wire Works Co., 59 Fulton St., New York.

Glen Mfg. Co., Ellwood City, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Parker Wire Goods Co., Worcester, Mass.

Sleeth-Brook & Seaman Co., 253 Broadway, New York.

Wire Goods Co., Worcester, Mass.

Mats, Table, Wire—

(See Household Articles, Wire.)

Mattocks—

(See Picks.)

Mattocks, Asphalt—

Hubbard & Co., Pittsburgh, Pa.

Mattocks, Pick—

Hubbard & Co., Pittsburgh, Pa.

Mattocks, Garden—

American Fork & Hoe Co., Cleveland, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Mauls—

S. Cheney & Son, Manlius, N. Y.

Hubbard & Co., Pittsburgh, Pa.

Western Foundry & Sash Weight Co., 2d and Miller Sts., St. Louis, Mo.

Mauls, Ship-
L. & I. J. White Co., Buffalo, N. Y.

Meal, Leather, for Dry Tumbling Barrels-
Peckham Mfg. Co., Newark, N. J.
Measures, Board, Log and Wood-

Chapin-Stephens Co., Pine Meadow, Ct.
Lufkin Rule Co., Saginaw, Mich.
Stanley Rule & Level Co., New Britain, Ct.

Measures, Grain-
W. J. Clark Co., Salem, O.

Measures, Lime-
W. J. Clark Co., Salem, O.

Measures, Linear-
Keuffel & Esser Co., 127 Fulton St., N. Y.
Stanley Rule & Level Co., New Britain, Ct.
Upon Nut Co., Cleveland, O.

Measures, Liquid-
John Chatillon & Sons, 85 Cliff St., N. Y.

Measures, Tape-
John H. Graham & Co., 113 Chambers St., New York.

Keuffel & Esser Co., 127 Fulton St., N. Y.
Lufkin Rule Co., Saginaw, Mich.
Simonds Mfg. Co., Fitchburg, Mass.
L. S. Starrett Co., Athol, Mass.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Measuring Faucets, Wheels-
(See Faucets, Wheels.)

Measuring Rods, Standard, End-
Brown & Sharpe Mfg. Co., Providence, R. I.

Keuffel & Esser Co., 127 Fulton St., N. Y.
Pratt & Whitney Co., Hartford, Ct.
J. T. Slocumb Co., Providence, R. I.

Meat and Vegetable Choppers and Cutters-
(See Cutters, Food, Meat and Vegetable.)

Meat Dishes-
(See Dishes, Silver Plated.)

Meat Hooks, Presses-
(See Hooks, Presses.)

Meat Juice Presses-
(See Presses, Fruit and Juice.)

Mechanical Rubber Goods-
(See Rubber Goods, Mechanical.)

Menders, Hose-
(See Hose Attachments.)

Menders, Steel Tape-
Eyelet Tool Co., Boston, Mass.

Mending Plates-
(See Plates, Mending.)

Merchants, Iron and Steel-
(See Iron and Steel Brokers and Merchants.)

Merchants, Metal-
(See Iron and Steel, Brokers and Merchants.)

Merry-Go-Rounds for Public Playgrounds-
Taylor & Fenn Co., Hartford, Ct.

Metal, Anti-Friction, Bronze, &c-
(See Anti-Friction, Bronze, &c.)

Metal Goods, Sheet, to Order-
(See Sheet Metal Goods, to Order.)

Metal Lacquers-
(See Lacquers.)

Metal, Perforated Sheet-
Clinton Wire Cloth Co., Clinton, Mass.

Metal, Platers, or Gold-
Bridgeport Brass Co., 233 B'way, N. Y.
Riverside Metal Co., Riverside, N. J.
Seymour Mfg. Co., Seymour, Ct.

Metal Polish, Scribes-
(See Polish, Scribes.)

Metal Shearing to Order-
Avery Stamping Co., Cleveland, O.

Metal Specialties, Ornamental Sheet-

Harvey Hubbell, Bridgeport, Ct.
M. I. Smith, Bristol, Ct.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Metal Specialties to Order-
Advance Mfg. Co., Racine Junction, Wis.
American Tube & Stamping Co., Bridgeport, Ct.

Arrow Can Co., 35 Warren St., N. Y.
Avery Stamping Co., Cleveland, O.
Bancroft & Co., Philadelphia, Pa.

Blake & Johnson Co., Waterbury, Ct.
Boston Pressed Metal Co., Worcester, Mass.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

A. N. Clark & Son, Plainville, Ct.
W. J. Clark & Co., Salem, O.

Clark Novelty Co., Rochester, N. Y.
Commercial Can Co., Chicago, Ill.
Crosby Co., Buffalo, N. Y.

Eastern Machine & Stamping Co., Providence, R. I.

Eller Mfg. Co., Canton, O.
Erie Stamping & Mfg. Co., Erie, Pa.
Gem Mfg. Co., Boston, Mass.

Gem Mfg. Co., Pittsburgh, Pa.
Globe Machine & Stamping Co., Cleveland, O.

Grant Mfg. & Machine Co., Bridgeport, Ct.
Gueder & Paeschke Mfg. Co., Milwaukee, Wis.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

R. C. Jenkinson & Co., Newark, N. J.
Kilborn & Bishop Co., New Haven, Ct.
W. B. Knight Machinery Co., St. Louis, Mo.

E. Konigsloew Stamping & Tool Works, Cleveland, O.

Otto Konigsloew Mfg. Co., Cleveland, O.
Homer F. Livermore, Boston, Mass.

McKinney Mfg. Co., Allegheny, Pa.
H. A. Matthews Mfg. Co., Seymour, Ct.

Metal Specialties Mfg. Co., Chicago, Ill.
Frank Mossberg Co., Attleboro, Mass.

Mossberg Wrench Co., Central Falls, R. I.

National Cycle Mfg. Co., Bay City, Mich.
Ohio Brass Co., Mansfield, O.

Osborn Mfg. Co., Cleveland, O.
Parker Wire Goods Co., Worcester, Mass.

Richmond Forgings Corporation, Richmond, Va.
Robinson Tool Works, Waterbury, Ct.

Arthur T. Rutter & Co., 256 Broadway, New York.
Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Scovill Mfg. Co., Waterbury, Ct.
Seymour Mfg. Co., Seymour, Mass.
Geo. A. Smith Co., Worcester, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.

- Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
 Tudor Boiler Mfg. Co., Cincinnati, O.
 W. & S. Mfg. Co., Worcester, Mass.
 E. R. Wagner Mfg. Co., North Milwaukee, Wis.
 Worcester Pressed Steel Co., Worcester, Mass.
 Worcester Stamping Co., Worcester, Mass.
Metal Wainscot—
 (See Ceiling and Siding.)
Metal Wheel Machinery—
 (See Wheel Machinery, Metal.)
Metal Work, Milled, Turned or Stamped, to Order—
 Adell Bros. Mfg. Co., Orange, Mass.
 American Tube & Stamping Co., Bridgeport, Ct.
 Avery Stamping Co., Cleveland, O.
 Bettcher Mfg. Co., Cleveland, O.
 Blake & Johnson Co., Waterbury, Ct.
 Bossert Electric Construction Co., Utica, N. Y.
 Boston Pressed Metal Co., Worcester, Mass.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
 A. N. Clark & Son, Plainville, Ct.
 W. J. Clark Co., Salem, O.
 Clark Novelty Co., Rochester, N. Y.
 Commercial Can Co., Chicago, Ill.
 H. C. Cook Co., Ansonia, Ct.
 G. Drouve Co., Bridgeport, Ct.
 Erie Stamping & Mfg. Co., Erie, Pa.
 Gem Mfg. Co., Pittsburgh, Pa.
 Globe Machine & Stamping Co., Cleveland, O.
 Grant Mfg. & Machine Co., Bridgeport, Ct.
 Helwig Mfg. Co., St. Paul, Minn.
 Harvey Hubbell, Bridgeport, Ct.
 R. C. Jenkinson & Co., Newark, N. J.
 John R. Keim Mills, Inc., Buffalo, N. Y.
 Otto Konigslow Mfg. Co., Cleveland, O.
 Mathews Mfg. Co., Worcester, Mass.
 Metal Specialties Mfg. Co., Chicago, Ill.
 Mossberg Wrench Co., Central Falls, R. I.
 John L. Parker Co., Worcester, Mass.
 Arthur T. Rutter & Co., 256 Broadway, New York.
 Schatz Hardware Mfg. Co., Chappaqua, N. Y.
 Seymour Mfg. Co., Seymour, Ct.
 Geo. A. Smith Co., Worcester, Mass.
 Sparks-Withington Co., Ltd., Jackson, Mich.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 Worcester Pressed Steel Co., Worcester, Mass.
 Worcester Stamping Co., Worcester, Mass.
Metal Workers' Crayons—
 (See Crayons, Lumber, Marble, Metal Workers', &c.)
Metal, Yellow—
 Bridgeport Brass Co., 253 B'way, N. Y.
 J. Brooks Fennel & Co., Boston, Mass.
 Seymour Mfg. Co., Seymour, Ct.
Metallic Eyelets, Shingles—
 (See Eyelets, Shingles.)
Metals and Materials, Ammunition—
 Scovill Mfg. Co., Waterbury, Ct.
Metals and Materials, Clock and Watch—
 Scovill Mfg. Co., Waterbury, Ct.
- Metals, Perforated Sheet—**
 Clinton Wire Cloth Co., Clinton, Mass.
 Harrington & King Perforating Co., 209 No. Union St., Chicago, Ill.
 Hendrick Mfg. Co., Carbondale, Pa.
 Charles Muntz & Sons, 441-447 Pearl St., New York.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Metals, Rare, Free from Carbon—
 Goldschmidt Thermit Co., 43 Exchange Place, New York.
Meters, Ampere—
 (See Ammeters.)
Meters, Blast—
 Byram & Co., Inc., Detroit, Mich.
 J. W. Paxson Co., Philadelphia, Pa.
Meters, Milli-Volt Recording—
 Bristol Co., Waterbury, Ct.
Meters, Shunt Ampere Recording—
 Bristol Co., Waterbury, Ct.
Meters, Volt—
 Weston Electrical Instrument Co., Newark, N. J.
Meters, Volt Recording—
 Bristol Co., Waterbury, Ct.
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
 Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.
Meters, Water—
 Builders' Iron Foundry, Providence, R. I.
Meters, Water Current—
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Meters, Watt—
 Weston Electrical Instrument Co., Newark, N. J.
Meters, Watt Recording—
 Bristol Co., Waterbury, Ct.
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
Mica—
 Merchant & Evans Co., 517 Arch St., Philadelphia, Pa.
Micrometer Calipers, Holders—
 (See Calipers, Holders.)
Micrometers—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 J. T. Slocumb Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
Micrometers, Paper—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 J. T. Slocumb Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
Milk Can Stock—
 Sturges & Burn Mfg. Co., Chicago, Ill.
Milk Cans, Strainers—
 (See Cans, Strainers.)
Milkman's Bells—
 (See Bells, Milkman's.)
Mill Saws—
 (See Saws, Mill, Mulay, Crosscut, Drag, &c.)
Mill Supplies and Tools—
 American Well Works, Aurora, Ill.
Mill Tables—
 Morgan Construction Co., Worcester, Mass.
Mill Wire Goods—
 (See Wire Goods, Mill.)
Mill Work, Saw—
 (See Saw Mill Machinery.)

Mill Yard Steel Lamps—
(See Lamps, Steel Mill Yard, &c.)

Milled, Turned or Stamped Metal Work, to Order—
(See Metal Work, Milled, Turned or Stamped, to Order.)

Millers, Key Seat—
(See Key Way Machines.)

Milling and Drilling Machines, Butt—

F. B. Shuster Co., New Haven, Ct.

Milling Machine Attachments—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

R. M. Clough, Tolland, Ct.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring & Varick Sts., New York.

Hendey Machine Co., Torrington, Ct.

Pratt & Whitney Co., Hartford, Ct.

Milling Machines—

American Watch Tool Co., Waltham, Mass.

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Burke Machinery Co., Cleveland, O.

Cincinnati Milling Machine Co., Cincinnati, O.

Asa S. Cook Co., Hartford, Ct.

Espen Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Footo Bros. Gear & Machine Co., 23-30 S. Clinton St., Chicago, Ill.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring & Varick Sts., New York.

Hendey Machine Co., Torrington, Ct.

Ingersoll Milling Machine Co., Rockford, Ill.

W. B. Knight Machinery Co., St. Louis.

R. K. Le Blond Machine Tool Co., Cincinnati, O.

Newton Machine Tool Works, 23d and Vine Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, N.Y.

Pratt & Whitney Co., Hartford, Ct.

Schuchardt & Schutte, 136 Liberty St., New York.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

W. R. Beatty Machinery & Equipment Co., Pittsburgh, Pa.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

Hill, Clarke & Co., Boston, Mass.

J. J. McCabe, 14 Dey St., New York.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Machinists Supply Co., 16-18 So. Canal St., Chicago, Ill.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Marshall & Hirschart Machinery Co., 62-64 S. Canal St., Chicago, Ill.

Edgar M. Moore & Co., Pittsburgh, Pa.

Motch & Merryweather Machinery Co., Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

W. L. Sargent, Fitchburg, Mass.

H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Vandyck, Churchill Co., 8 Dey St., N. Y.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit, Mich.

Milling Machines, Bench and Hand—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Burke Machinery Co., Cleveland, O.

Fox Machine Co., Grand Rapids, Mich.

Garvin Machine Co., Spring & Varick Sts., New York.

Pratt & Whitney Co., Hartford, Ct.

Sloan & Chase Mfg. Co., Ltd., Newark, N. J.

Milling Machines, Double End—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Garvin Machine Co., Spring & Varick Sts., New York.

Hendey Machine Co., Torrington, Ct.

Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

F. E. Reed Co., Worcester, Mass.

F. B. Shuster Co., New Haven, Ct.

Milling Machines, High Speed—

Brown & Sharpe Mfg. Co., Providence, R. I.

Hendey Machine Co., Torrington, Ct.

Milling Machines, Keyseat—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

John T. Burr & Sons, Brooklyn, N. Y.

Ingersoll Milling Machine Co., Rockford, Ill.

Niles-Bement-Pond Co., 111 Broadway, New York.

Milling Machines, Nut and Bolt Head—

Dwight Slate Machine Co., Hartford, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Milling Machines, Oscillating—

Hendey Machine Co., Torrington, Ct.

Milling Machines, Planer Type—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Ingersoll Milling Machine Co., Rockford, Ill.

Milling Machines, Portable—

Niles-Bement-Pond Co., 111 Broadway, New York.

H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.

Milling Machines, Rack Cutting—

Brown & Sharpe Mfg. Co., Providence, R. I.

Hendey Machine Co., Torrington, Ct.

Milling Machines. Test Piece

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
Ingersoll Milling Machine Co., Rockford, Ill.

Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Milling Machines. Thread—
Pratt & Whitney Co., Hartford, Ct.

Milling Machines. Two Spindle Parallel—
Burke Machinery Co., Cleveland, O.

Milling Machines. Universal—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

Foot & Gear & Machine Co., 24-30 S. Clinton St., Chicago, Ill.

Garvin Machine Co., Spring & Varick Sts., New York.

Hendey Machine Co., Torrington Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Milling Machines. Vertical—
Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Cincinnati Milling Machine Co., Cincinnati, O.

R. M. Clough, Tolland, Ct.

Garvin Machine Co., Spring & Varick Sts., New York.

Hendey Machine Co., Torrington, N. Y.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.

Ingersoll Milling Machine Co., Rockford, Ill.

Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Mills. Adjustable Hollow—
Cleveland Twist Drill Co., Cleveland, O.

Geometric Tool Co., New Haven, Ct.

More Twist Drill & Machine Co., New Bedford, Mass.

Standard Tool Co., Cleveland, O.

Wells Bros. Co., Greenfield, Mass.

Mills. Blooming—
(See Blooming Mills.)

Mills. Bone and Shell—
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Mills. Boring and Turning—
Baugh Machine Tool Co., Springfield, Mass.

Bullard Mch. Tool Co., Bridgeport, Ct.

Colburn Machine Tool Co., Franklin, Pa.

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Fosdick Machine Tool Co., Cincinnati, O.

E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.

King Machine Tool Co., Cincinnati, O.

Lucas Machine Tool Co., Cleveland, O.

New Haven Mfg. Co., New Haven, Ct.

Niles-Bement-Pond Co., 111 Broadway, New York.

Rockford Drilling Machine Co., Rockford, Ill.

MERCHANTS.
Baird Machinery Co., Pittsburgh, Pa.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

Hill, Clarke & Co., Boston, Mass.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Marshall & Huchart Machinery Co., 62-64 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

New York Machinery Depot, 120 Broadway, New York.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

W. L. Sargent, Fitchburg, Mass.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Vandyck, Churchill Co., 8 Dey St., N. Y.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Mills. Boring and Turning Attachments—
Bullard Machine Tool Co., Bridgeport, Ct.

Mills. Boring and Turning, Vertical—
King Machine Tool Co., Cincinnati, O.

Mills. Car Wheel Boring—
Colburn Machine Tool Co., Franklin, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Mills. Cider—
Cutaway Harrow Co., Higganum, Ct.

R. W. Whitehurst Co., Norfolk, Va.

Mills. Cider—
Byram & Co., Inc., Detroit, Mich.

Keystone Farm Machine Co., York, Pa.

Royersford Foundry & Machine Co., Royersford, Pa.

Mills. Clay Grinding—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Mills. Coffee, Spice, &c.—
Arcade Mfg. Co., Freeport, Ill.

John Chatillon & Sons, 85 Cliff St., N. Y.

Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Fanner Mfg. Co., Cleveland, O.

Landers, Frary & Clark, New Britain, Ct.

Lane Bros. Co., Poughkeepsie, N. Y.

Charles Parker Co., Meriden, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Thomas Prosser & Son, 26 Platt St., N. Y.

R. W. Whitehurst Co., Norfolk, Va.

Wrightsville Hardware Co., Wrightsville, Pa.

Mills. Continuous Billet, Rod, Hoop, Cotton Tie and Merchant Bar—
Mackintosh, Hemphill & Co., Pittsburgh, Pa.

Morgan Construction Co., Worcester, Mass.

Mills. Corn and Feed—
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Keystone Farm Machine Co., York, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.

Thomas Prosser & Son, 26 Platt St., N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

Zimmerman Steel Co., Lone Tree, Ia.

Mills, Cotter—
(See Mills, End.)

Mills, Drug—

John Chatillon & Sons, 85 Cliff St., N. Y.

Enterprise Mfg. Co., of Pa., Philadelphia, Pa.

Landers, Frary & Clark, New Britain, Ct.

Lane Bros. Co., Poughkeepsie, N. Y.

Charles Parker Co., Meriden, Ct.

Mills, End—

Brown & Sharpe Mfg. Co., Providence, R. I.

Cleveland Twist Drill Co., Cleveland, O.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

Union Twist Drill Co., Athol, Mass.

Mills, Fly Wheel Boring—

Colburn Machine Tool Co., Franklin, Pa.

Mills, For Rolling Tin Foil—

Blake & Johnson Co., Waterbury, Ct.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Mills, Hollow—

Cleveland Twist Drill Co., Cleveland, O.

Mills, Lath and Stave—

Wickes Bros., Saginaw, Mich.

Mills, Linseed Oil—

Chas. F. Elmes Engineering Works, 253-255 Fulton St., Chicago, Ill.

Mills, Paint—

Poole Engineering & Machine Co., Baltimore, Md.

Mills, Rod Tapering—

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Mills, Shell End—
(See Mills, End.)

Mills, Tube—

Standard Engineering Co., Ellwood City, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Mills, Vertical Turning and Boring—

Bethlehem Steel Co., So. Bethlehem, Pa.

Bullard Machine Tool Co., Bridgeport, Ct.

Colburn Machine Tool Co., Franklin, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Mills, Wet and Dry Tube—

Byram & Co., Inc., Detroit, Mich.

Mills, Wheel Rolling—

Bethlehem Steel Co., So. Bethlehem, Pa.

Mills, Wind—

W. E. Caldwell Co., Louisville, Ky.

Mast, Fos & Co., Springfield, O.

Mills, Wire Flattening—

Blake & Johnson Co., Waterbury, Ct.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Mills, with Inserted Teeth—

Brown & Sharpe Mfg. Co., Providence, R. I.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

Millwrights—

American Tool & Machine Co., Boston.

Humphrey Machine Co., Keene, N. H.

Mining Knives—
(See Knives, Mining.)

Mine Car Hitchings—

(See Couplings, Mine Car.)

Mine Supplies—

Broderick & Bascom Rope Co., St. Louis.

Chrome Steel Works, Chrome, N. J.

Hirsch Rolling Mill Co., St. Louis, Mo.

Jeffrey Mfg. Co., Columbus, O.

A. Leschen & Sons Rope Co., St. Louis.

Wellman-Seaver-Morgan Co., Cleveland, O.

Ernst Wiener Co., Broad & Beaver Sts., New York.

Miners' Lamps—

(See Lamps, Miners')

Mining Machinery—

Allentown Rolling Mills, Allentown, Pa.

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Browning Engineering Co., Cleveland, O.

Charter Gas Engine Co., Sterling, Ill.

Chicago Pneumatic Tool Co., Fiaher Bldg., Chicago, Ill.

Farrel Foundry & Mach. Co., Ansonia, Ct.

Fawcett Machine Co., Pittsburgh, Pa.

Ingersoll-Rand Co., 11 Broadway, New York.

Interstate Engineering Co., Bedford, O.

Jeffrey Mfg. Co., Columbus, O.

Arthur Koppel Co., Pittsburgh, Pa.

Lidgerwood Mfg. Co., 96 Liberty St., N. Y.

John H. McGowan Co., Cincinnati, O.

Thomas Prosser & Son, 26 Platt St., N. Y.

Robins Conveying Belt Co., Park Row Bldg., New York.

Wellman-Seaver-Morgan Co., Cleveland, O.

Mirror Frames—

(See Frames, Mirror, Photograph, Metal.)

Miscellaneous Rules—

(See Measures, Board, Log and Wood.)

Miscellaneous Wire Nails and Brads—

(See Tacks, Brads, Finishing Nails, &c.)

Miter Boxes, Rods—

(See Boxes, Rods.)

Miter Planers—

(See Planers, Miter.)

Miter Squares—

(See Squares, Try.)

Miters, Eave Trough—

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Reeves Mfg. Co., Canal Dover, O.

Mixers, Concrete—

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Thos. Carlin's Sons, Allegheny, Pa.

Interstate Engineering Co., Bedford, O.

Mixers, Concrete, Blades for—

Taylor Iron & Steel Co., High Bridge, N. J.

Mixers, Dough—

Gem Mfg. Co., Boston, Mass.

Landers, Frary & Clark, New Britain, Ct.

Mixers, Paint—

Poole Engineering & Machine Co., Baltimore, Md.

Mixers, Plastic Slate—

F. H. Evans, Brooklyn, N. Y.

Mixing Machines, Sand—

Barbour-Stockwell Co., Cambridgeport, Mass.

Gould & Eberhardt, Newark, N. J.

S. Obermayer Co., Cincinnati, O.

J. W. Faxon Co., Philadelphia, Pa.

Mixtures, Gas—

Cullen & Atkinson Co., Inc., Hartford, Ct.

Model, and Experimental Work—

Adell Bros. Mfg. Co., Orange, Mass.

Adriance Machine Works, Brooklyn, N. Y.

Baird Machine Co., Oakville, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Clark Novelty Co., Rochester, N. Y.

Eastern Machine & Stamping Co., Providence, R. I.

Wm. Gardam & Son, Inc., 221 Fulton St., New York.

Globe Machine & Stamping Co., Cleveland, O.

Goodwin & Kintz Co., Winsted, Ct.

Grant Mfg. & Machine Co., Bridgeport, Ct.

Heindel Mfg. Co., Hanover, Pa.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

W. B. Knight Machinery Co., St. Louis, Mo.

E. Konigalov Stamping & Tool Works, Cleveland, O.

Otto Konigalov Mfg. Co., Cleveland, O.

Joseph Merritt, Hartford, Ct.

Frank Mossberg Co., Attleboro, Mass.

Mummert, Wolf & Dixon Co., Hanover, Pa.

Pratt & Whitney Co., Hartford, Ct.

Richmond Forgings Corporation, Richmond, Va.

Risdon Tool Works, Inc., Waterbury, Ct.

Robinson Tool Works, Waterbury, Ct.

J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Sloan & Chase Mfg. Co., Ltd., Newark, N. J.

M. I. Smith, Bristol, Ct.

Torrington Mfg. Co., Torrington, Ct.

Webster & Perks Tool Co., Springfield, O.

York Pattern Works, York, Pa.

Modillions, Moldings, &c.—

(See Architectural Sheet Metal Work.)

Molasses Gates—

(See Gates, Oil and Molasses.)

Molded Rubber Goods—

(See Rubber Goods, Mechanical.)

Molders' Bellows—

(See Bellows, Blacksmiths', &c.)

Molders' Tools—

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Molding, Hip—

(See Architectural Sheet Metal Work.)

Molding Machines, Car Wheel—

Henry E. Pridmore, 19th & Rockwell Sts., Chicago, Ill.

Molding Machines, Foundry—

ArCADE Mfg. Co., Freeport, Ill.

E. H. Mumford Co., 17th & Callowhill Sts., Philadelphia, Pa.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Power Specialty Co., 111 Broadway, New York.

Henry E. Pridmore, Chicago, Ill.

Taylor-Wilson Mfg. Co., McKees Rocks, Pa.

Webster & Perks Tool Co., Springfield, Mass.

Whiting Foundry Equipment Co., Harvey, Ill.

Molding Machines, Hydraulic—

E. H. Mumford Co., 17th and Callowhill Sts., Philadelphia, Pa.

Molding Machines, Pneumatic—

E. H. Mumford Co., 17th and Callowhill Sts., Philadelphia, Pa.

Molding Machines, Pulley—

Cincinnati Pulley Machinery Co., Cincinnati, O.

Henry E. Pridmore, 19th & Rockwell Sts., Chicago, Ill.

Molding Machines, Wood—

W. F. & John Barnes Co., Rockford, Ill.

Oliver Machinery Co., Grand Rapids, Mich.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Molding Sand—

(See Sand, Molding.)

Moldings, Brass—

Bridgeport Brass Co., 233 B'way, N. Y.

Moldings, Crown and Belt—

(See Cornice, &c., Sheet Metal.)

Molds, For Casting Metals—

Schwerdtle Stamp Co., Bridgeport, Ct.

Molds, Glass—

Wheeling Mold & Foundry Co., Wheeling, W. Va.

Molds, Ingot—

Bethlehem Steel Co., So. Bethlehem, Pa.

Reed F. Blair & Co., Pittsburgh, Pa.

Carnegie Steel Co., Pittsburgh, Pa.

J. W. Paxson Co., Philadelphia, Pa.

Philadelphia Tool & Machine Co., 33d St. & Washington Ave., Philadelphia, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Wheeling Mold & Foundry Co., Wheeling, W. Va.

Molybdenum—

Goldschmidt Thermit Co., 43 Exchange Pl., New York.

Roessler & Hasslacher Chemical Co., 100 William St., New York.

Molybdenum-Nickel—

Geo. G. Blackwell, Sons & Co., Ltd., Liverpool, England.

Money Drawers—

(See Tills, Alarm.)

Monitor Head for Lathes—

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Monograms, Automobile—

Schwerdtle Stamp Co., Bridgeport, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Monotype Metal—

Theo. Hertz Metal Co., St. Louis, Mo.

Pittsburgh White Metal Co., Pittsburgh, Pa.

Mops, Floor, Dish, &c.—

ArCADE Mfg. Co., Freeport, Ill.

Bay State Mop Co., Woburn, Mass.

Eagle Cooperage Works, Circleville, O.

Eates Mills, Fall River, Mass.

Reading Hardware Co., Reading, Pa.

Mortar Hoes, Hoists—

(See Hoes, Hoists.)

Mortars and Pestles—

Griswold Mfg. Co., Erie, Pa.

Stuart & Peterson Co., Burlington, N. J.

Mortising Machines—

W. F. & John Barnes Co., Rockford, Ill.
Oliver Machinery Co., Grand Rapids, Mich.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Mosquito Nettings—

(See Nettings, Mosquito.)

Motor Cars—

(See Automobiles.)

Motor Cycle Parts—

Standard Welding Co., Cleveland, O.

Motor Springs—

(See Springs, Motor.)

Motors, Compressed Air—

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

General Pneumatic Tool Co., Montour Falls, N. Y.

Helwig Mfg. Co., St. Paul, Minn.

Ingersoll-Rand Co., 11 Broadway, New York

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Motors, Electric—

Browning Engineering Co., Cleveland, O.

C. & C. Electric Co., Garwood, N. J.

Jas. Clark, Jr., Electric Co., Louisville, Ky.

Crocker-Wheeler Co., Ampere, N. J.

Electric Controller & Supply Co., Cleveland, O.

General Electric Co., Schenectady, N. Y.

Lincoln Motor Works Co., Cleveland, O.

Northern Electrical Mfg. Co., Madison, Wis.

Northern Engineering Works, Detroit, Mich.

Ridgway Dynamo & Engine Co., Ridgway, Pa.

Sheffield Car Co., Three Rivers, Mich.

Stow Mfg. Co., Binghamton, N. Y.

E. F. Sturtevant Co., Boston, Mass.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

MERCHANTS.

Charles Behlen, 72 Trinity Pl., New York.

Central Station Improvement Co., Monadnock Block, Chicago, Ill.

Charles E. Dustin Co., 11 Broadway, New York.

McDowell & Co., Allegheny, Pa.

Marshall & Hunschart Machinery Co., 62 S. Canal St., Chicago, Ill.

Pfannmueller Engineering Co., First National Bank Bldg., Chicago, Ill.

Power Equipment Co., Fisher Bldg., Chicago, Ill.

L. F. Seyfert's Sons, Inc., 437-441 N. 3d St., Philadelphia, Pa.

Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Jacob Ullman, Buffalo, N. Y.

Walsh's Sons & Co., Newark, N. J.

Wickes Bros., Saginaw, Mich.

Yearsley & Levene, 305 N. 3d St., Philadelphia, Pa.

Motors, Electric Fan—

General Electric Co., Schenectady, N. Y.

W. R. Ostrander & Co., 22 Dev. St., N. Y.

Motors, Electric Variable Speed—

C. & C. Electric Co., Garwood, N. J.

Lincoln Motor Works Co., Cleveland, O.

Motors, Gasoline—

(See Engines, Gas and Gasoline.)

Motors, Steam Turbine—

De Laval Steam Turbine Co., Trenton, N. J.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Motors, Water—

American Die & Tool Co., Reading, Pa.

Humphreys Mfg. Co., Mansfield, O.

Princess Mfg. Co., Cincinnati, O.

M. I. Smith, Bristol, Ct.

E. F. Sturtevant Co., Boston, Mass.

Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Mountings, Automobile and Carriage—

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Mouse Traps—

(See Traps, Rat and Mouse.)

Movers, Car—

(See Pushers, Car.)

Movers, Piano—

Sycamore Wagon Works, Sycamore, Ill.

Mowers, Lawn—

American Die & Tool Co., Reading, Pa.

Blair Mfg. Co., Springfield, Mass.

Clipper Lawn Mower Co., Dixon, Ill.

Coldwell Lawn Mower Co., Newburgh, N. Y.

Mast, Foos & Co., Springfield, O.

Ney Mfg. Co., Canton, O.

Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.

Reading Hardware Co., Reading, Pa.

Supplies Hardware Co., Market and 5th Sts., Philadelphia, Pa.

S. P. Townsend & Co., Orange, N. J.

Whitman & Barnes Mfg. Co., Chicago.

Worcester Lawn Mower Co., Worcester, Mass.

Mowers, Motor Lawn—

Coldwell Lawn Mower Co., Newburgh, N. Y.

Muck Bars—

(See Bars, Muck.)

Mud Guards—

(See Dashes and Fenders, Carriage, Automobile, &c.)

Mufflers, Safety Valve—

Consolidated Safety Valve Co., 85-89 Liberty St., New York.

Muffles, Annealing—

Cyrus Borgner Co., 23d St., above Race, Philadelphia, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Mule and Horse Shoes—

(See Shoes, Horse and Mule.)

Mule Saws—

(See Saws, Crosscut, Drag, Mill, &c.)

Multiplying and Dividing Machines—

(See Adding, Computing and Reckoning Machines.)

Musical String Machinery—

Chas. Lefter & Co., Brooklyn, N. Y.

Muzzles—

Andrews Wire & Iron Works, Rockford, Ill.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

Wire Goods Co., Worcester, Mass.

Nail Bins, Clippers, Pullers, &c.

(See Bins, Clippers, Pullers, &c.)

Nail Kegs.

(See Kegs, Nail, Bolt, Nut, &c.)

Nail Machines, Furniture—

Blake & Johnson Co., Waterbury, Ct.

Nail Machines, Shoe—

Kimball Bros. & Sprague, Brockton, Mass.

Henry Perkins Co., Bridgewater, Mass.

Nail Machines, Wire—

Blake & Johnson Co., Waterbury, Ct.

Kimball Bros. & Sprague, Brockton, Mass.

H. J. Miller's Sons, Bridgewater, Mass.

Henry Perkins Co., Bridgewater, Mass.

Turner Vaughn & Taylor Co., Cuyahoga Falls, O.

Walton & Macke, Kokomo, Ind.

Nail Pullers—

(See Pullers, Nail.)

Nails, Aluminum—

John Hassall, Brooklyn, N. Y.

Milwaukee Tack Co., Milwaukee, Wis.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Nails and Studs, Ornamental—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Nails and Tacks, Brass—

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Nails and Tacks, Brush—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

Milwaukee Tack Co., Milwaukee, Wis.

Ripley & Bartlett, Plymouth, Mass.

Shelton Co., Shelton, Ct.

C. C. & E. P. Townsend Co., New Brighton, Pa.

Nails and Tacks, Copper—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Blake & Johnson Co., Waterbury, Ct.

Cobb & Drew, Inc., Plymouth, Mass.

Globe Mfg. Co., Taunton, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Milwaukee Tack Co., Milwaukee, Wis.

E. Phillips & Sons, South Hanover, Mass.

Shelton Co., Shelton, Ct.

Nails and Tacks, Trunk—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Cobb & Drew, Inc., Plymouth, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

Milwaukee Tack Co., Milwaukee, Wis.

E. Phillips & Sons, South Hanover, Mass.

Ripley & Bartlett, Plymouth, Mass.

Shelton Co., Shelton, Ct.

Nails, Basket—

(See Tacks, Box, Basket, &c.)

Nails, Boat—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Nails, Boat, Galvanized—

Keystone Nail Co., Washington Ave. above 16th St., Philadelphia, Pa.

Thomas Laughlin Co., Portland, Me.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Nails, Brass—

E. Phillips & Sons, So. Hanover, Mass.

Nails, Canvas—

Milwaukee Tack Co., Milwaukee, Wis.

Nails, Cement, Coated—

J. C. Pearson Co., Boston, Mass.

Nails, Chair—

Grand Crossing Tack Co., Grand Crossing, Ill.

Milwaukee Tack Co., Milwaukee, Wis.

Nails, Cigar Box—

Grand Crossing Tack Co., Grand Crossing, Ill.

C. C. & E. P. Townsend Co., New Brighton, Pa.

Nails, Clout—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Cobb & Drew, Inc., Plymouth, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Milwaukee Tack Co., Milwaukee, Wis.

E. Phillips & Sons, South Hanover, Mass.

Ripley & Bartlett, Plymouth, Mass.

Shelton Co., Shelton, Ct.

Nails, Copper Shoe—

(See Nails and Tacks, Copper.)

Nails, Copper Slating—

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Milwaukee Tack Co., Milwaukee, Wis.

Nails, Copper Wire—

(See Nails and Tacks, Copper.)

Nails, Corrugated—

Globe Mfg. Co., Taunton, Mass.

Ripley & Bartlett, Plymouth, Mass.

Nails, Countersunk Head—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Globe Mfg. Co., Taunton, Mass.

Ripley & Bartlett, Plymouth, Mass.

C. C. & E. P. Townsend Co., New Brighton, Pa.

Nails, Cut—

La Belle Iron Works, Steubenville, O.

Nails, Fender—

H. O. Canfield Co., Bridgeport, Ct.

Nails, Finishing—

Grand Crossing Tack Co., Grand Crossing, Ill.

Nails, Galvanized—

Cleveland Galvanizing Works, Cleveland, Ohio.

Keystone Nail Co., Philadelphia, Pa.

Thomas Laughlin Co., Portland, Me.

W. & J. Tiebout, 118 Chambers St., N. Y.

C. C. & E. P. Townsend Co., New Brighton, Pa.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Nails, Hinge and Wagon—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Nails, Hob—

Milwaukee Tack Co., Milwaukee, Wis.

Ripley & Bartlett, Plymouth, Mass.

Louis Sacks, Newark, N. J.

Shelton Co., Shelton, Ct.

- Nails, Horseshoe—**
 Ausable Horse Nail Co., Keeseville, N. Y.
 Capewell Horse Nail Co., Hartford, Ct.
 Standard Horse Nail Co., New Brighton, Pa.
 Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
- Nails, Hungarian—**
 Ripley & Bartlett, Plymouth, Mass.
 Shelton Co., Shelton, Ct.
- Nails, Last—**
 Globe Mfg. Co., Taunton, Mass.
 Grand Crossing Tack Co., Grand Crossing, Ill.
- E. Phillips & Sons, South Hanover, Mass.**
- Nails, Picture—**
 Globe Mfg. Co., Taunton, Mass.
 Parker Wire Goods Co., Worcester, Mass.
 Turner & Stanton Co., Norwich, Ct.
- Nails, Saddle and Lining—**
 American Rivet Co., New Haven, Ct.
 Grand Crossing Tack Co., Grand Crossing, Ill.
- Shelton Co., Shelton, Ct.**
- Nails, Sheathing and Roofing—**
 Grand Crossing Tack Co., Grand Crossing, Ill.
- Henry J. Miller's Sons, Bridgewater, Mass.**
- E. Phillips & Sons, South Hanover, Mass.**
 C. C. & E. P. Townsend Co., New Brighton, Pa.
- Nails, Shoe, Brass—**
 Milwaukee Tack Co., Milwaukee, Wis.
- Nails, Shoe, Cobblers', Channel, &c.—**
 Grand Crossing Tack Co., Grand Crossing, Ill.
- H. J. Miller's Sons, Bridgewater, Mass.**
 Milwaukee Tack Co., Milwaukee, Wis.
 E. Phillips & Sons, South Hanover, Mass.
 Ripley & Bartlett, Plymouth, Mass.
 Shelton Co., Shelton, Ct.
- Nails, Shoe, Zinc—**
 E. Phillips & Sons, So. Hanover, Mass.
- Nails, Tie Dating—**
 C. C. & E. P. Townsend Co., New Brighton, Pa.
- Nails, Tinned—**
 C. C. & E. P. Townsend Co., New Brighton, Pa.
- Wilcox, Crittenden & Co., Inc., Middletown, Ct.**
- Nails, Upholsterers'—**
 American Ring Co., Waterbury, Ct.
 Parker Wire Goods Co., Worcester, Mass.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 Turner & Stanton Co., Norwich, Ct.
 Wire Goods Co., Worcester, Mass.
- Nails, Wagon Hinge, &c.—**
 Grand Crossing Tack Co., Grand Crossing, Ill.
- C. C. & E. P. Townsend Co., New Brighton, Pa.**
- Nails, Wire—**
 American Steel & Wire Co., The Rookery, Chicago, Ill.
 Dillon-Griswold Wire Co., Sterling, Ill.
 Globe Mfg. Co., Taunton, Mass.
 Grand Crossing Tack Co., Grand Crossing, Ill.
- John Hassall, Brooklyn, N. Y.**
 Keystone Steel & Wire Works, Peoria, Ill.
 Morgan Spring Co., Worcester, Mass.
 Parker Wire Goods Co., Worcester, Mass.
- Phillips Pressed Steel Pulley Works, 4th St. & Glenwood Ave., Philadelphia, Pa.**
- Pittsburgh Steel Co., Pittsburgh, Pa.**
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 E. H. Titchener & Co., Binghamton, N. Y.
 C. C. & E. P. Townsend Co., New Brighton, Pa.
- Washburn Wire Co., Phillipsdale, R. I.**
 Wickwire Bros., Cortland, N. Y.
 Wire Goods Co., Worcester, Mass.
- Nails, Wire, Brass—**
 John Hassall, Brooklyn, N. Y.
 Milwaukee Tack Co., Milwaukee, Wis.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
- Nails, Wire, Copper—**
 John Hassall, Brooklyn, N. Y.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
- Nails, Wire, German Silver—**
 John Hassall, Brooklyn, N. Y.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
- Nails, Zinc, Greenhouse—**
 E. Phillips & Sons, So. Hanover, Mass.
- Name Plates—**
 (See Plates, Name.)
- Napkin Rings—**
 (See Rings, Napkin, Silver Plated.)
- Natural Gas Burners—**
 (See Burners, Natural Gas.)
- Natural Gas Pumps—**
 (See Pumps, Natural Gas.)
- Navy and Army Scales—**
 (See Scales, Army and Navy.)
- Needle Bar Stock—**
 Kidd Bros. & Burgher Steel Wire Co., Alliquippa, Pa.
- Needle Wire—**
 (See Wire, Needle.)
- Needles, Knitting, Machine—**
 Excelsior Needle Co., Torrington, Ct.
- Needles, Mattress—**
 Schuchardt & Schutte, 136 Liberty St., New York.
- Needles, Open or Welded Handle—**
 Hubbard & Co., Pittsburgh, Pa.
- Needles, Sail Makers' Packing, &c.—**
 Schuchardt & Schutte, 136 Liberty St., New York.
- W. & J. Tiebout, 118 Chambers St., N. Y.**
- Needles, Sewing Machine—**
 Excelsior Needle Co., Torrington, Ct.
- Needles, Wax Thread—**
 Excelsior Needle Co., Torrington, Ct.
- Nests, Hens', &c.—**
 Gilbert & Bennett Mfg. Co., 27 Broadway, New York.
- Ludlow-Saylor Wire Co., St. Louis, Mo.**
- Nets, Bicycle—**
 Turner & Stanton Co., Norwich, Ct.
- Nets, Scoop—**
 Thomas Laughlin Co., Portland, Me.
 W. & J. Tiebout, 118 Chambers St., N. Y.
- Wilcox, Crittenden & Co., Inc., Middletown, Ct.**
- Nets, Scoop, Ice—**
 (See Ice Harvesting Tools.)
- Netting, Minnow—**
 I. E. Palmer, Middletown, Ct.
- Netting, Wire—**
 American Steel & Wire Co., The Rookery, Chicago, Ill.
- Buffalo Wire Works Co., Buffalo, N. Y.**

Clinton Wire Cloth Co., Clinton, Mass.
 Dufur & Co., Baltimore, Md.
 Estey Wire Works Co., 59 Fulton St.,
 New York.
 Gilbert & Bennett Mfg. Co., 277 Broad-
 way, New York.
 Howard & Morse, 45 Fulton St., N. Y.
 Ludlow-Saylor Wire Co., St. Louis, Mo.
 Michigan Wire Cloth Co., Detroit, Mich.
 New Jersey Wire Cloth Co., Trenton, N. J.
 Philadelphia Steel & Wire Co., 525 Com-
 merce St., Philadelphia, Pa.
 W. S. Tyler Co., Cleveland, O.
 Wickwire Bros., Cortland, N. Y.
 Wright Wire Co., Worcester, Mass.
 (See also Fencing, Foultry.)

Nettings, Canopy, Horsefly

and Mosquito
 f. E. Palmer, Middletown, Ct.

Nickel—

American Metal Co., 52 Broadway, N. Y.
 Hermann Boker & Co., 101-103 Duane St.,
 New York.

Hanson & Van Winkle Co., Newark,
 N. J.

Seymour Mfg. Co., Seymour, Ct.
 Waite, Ranlet & Co., Boston, Mass.

Nickel Alloys—

(See Alloys, Nickel.)

Nickel, Electro Plated—

(See Plating, Electro, Nickel, &c.)

Nickel Plating—

(See Plating, Nickel.)

Nickeline—

Hermann Boker & Co., 101 Duane St., N. Y.

Night Latches—

(See Latches, Night.)

Nippers, Bicycle—

Kilborn & Bishop Co., New Haven, Ct.
 Utica Drop Forge & Tool Co., Utica,
 N. Y.

Nippers, Bolt, Pneumatic—

Helwig Mfg. Co., St. Paul, Minn.

Nippers, Cutting—

Heller Bros. Co., Newark, N. J.
 Kilborn & Bishop Co., New Haven, Ct.
 Utica Drop Forge & Tool Co., Utica,
 N. Y.

Nippers, End Cutting—

Bridgeport Hardware Mfg. Co., Bridge-
 port, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Alfred Field & Co., 93 Chambers St.,
 New York.

Kilborn & Bishop Co., New Haven, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Louis Sacks, Newark, N. J.
 Otis A. Smith, Rockfall, Ct.

L. S. Starrett Co., Athol, Mass.
 Utica Drop Forge & Tool Co., Utica,
 N. Y.

Nippers, Stay Bolt—

Chicago Pneumatic Tool Co., Fisher
 Bldg., Chicago, Ill.

Nipple Blank Machines, Bi-

cycle—
 Waterbury Farrel Foundry & Machine
 Co., Waterbury, Ct.

Nipple Holders, Wrenches—

(See Holders, Wrenches.)

Nipple Machines—

Merrell Mfg. Co., Toledo, O.

Nipple Threading Ma-

chines—
 (See Threading Machines.)

Nipples, Bicycle and Auto-

mobile—
 American Steel & Wire Co., The Rookery,
 Chicago, Ill.

E. J. Manville Machine Co., Waterbury,
 Ct.

Wire Goods Co., Worcester, Mass.

Nipples, Radiator—

Pratt Chuck Co., Frankfort, N. Y.

Nipples, Soldering—

Clum & Atkinson, Rochester, N. Y.

Notary Seals—

(See Seals, Notary, &c.)

Notching Machines, Arma-

ture Disc—
 E. W. Bliss Co., Brooklyn, N. Y.

Jas. Clark, Jr., Electric Co., Louisville,
 Ky.

Consolidated Press & Tool Co., Hastings,
 Mich.

Ferracute Machine Co., Bridgeton, N. J.
 Long & Allstatter Co., Hamilton, O.

Niagara Machine & Tool Works, Buffalo,
 N. Y.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Notching Machines, Splice

Bar—
 Long & Allstatter Co., Hamilton, O.

Novelties, Advertising—

(See Advertising Novelties.)

Novelties, Aluminum—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Nozzle Piezometer Gauges—

American Steam Gauge & Valve Mfg.
 Co., Boston, Mass.

Nozzles, Blast—

Eynon-Evans Mfg. Co., 1507 Clearfield St.,
 Philadelphia, Pa.

Nozzles, Hose—

Barnes Mfg. Co., Mansfield, O.
 W. J. Clark Co., Salem, O.

Landers, Frary & Clark, New Britain, Ct.
 F. E. Myers & Bro., Ashland, O.

Nozzles, Hydraulic Mining—

American Spiral Pipe Works, 1173-1201
 Paulina St., Chicago, Ill.

Nozzles, Ladle—

McCullough-Dalzell Crucible Co., Pitts-
 burgh, Pa.

R. B. Seidel, Inc., 1334 Callowhill St.,
 Philadelphia, Pa.

Nozzles, Oil—

American Tube & Stamping Co., Bridge-
 port, Ct.

Gem Mfg. Co., Pittsburgh, Pa.

Nozzles, Sand Blast—

Lunkenheimer Co., Cincinnati, O.

Nozzles, Spraying—

Deming Co., Salem, O.

Numbering Machines, Auto-

matic—
 A. G. Butler, 234-236 Pearl St., N. Y.

Numbers, House—

(See Letters and Figures, House.)

Nut and Bolt Machinery—

(See Bolt and Nut Machinery.)

Nut Covers—

(See Covers, Nut.)

Nut Crackers, Picks—

(See Crackers, Picks.)

Nut Keys—

(See Keys, Nail, Bolt, Nut, &c.)

- Nut Machines—**
(See Forging Machines, Pointers and Presses, Nut.)
- Nut Tapping Machines—**
(See Burring Machines, Facing Machines, Tapping Machines.)
- Nutmeg Grates—**
(See Grates, Nutmeg.)
- Nuts, Brass, Hexagon—**
Delaware Marine Supply Mfg. Co., Wilmington, Del.
- Nuts, Cap—**
Atlas Bolt & Screw Co., Cleveland, O.
Blake & Johnson Co., Waterbury, Ct.
Detroit Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Ct.
National-Acme Mfg. Co., Cleveland, O.
New Haven Machine Screw Co., New Haven, Ct.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Worcester Pressed Steel Co., Worcester, Mass.
- Nuts, Check—**
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- Nuts, Clevis—**
Cleveland City Forge & Iron Co., Cleveland, O.
- Nuts, Cold Punched—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anthony Screw Co., Worcester, Mass.
Detroit Screw Works, Detroit, Mich.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Grabler Mfg. Co., Cleveland, O.
Graham Nut Co., Pittsburgh, Pa.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
Milton Mfg. Co., Milton, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
Rhode Island Tool Co., Providence, R. I.
Thomas Smith Co., Worcester, Mass.
- Nuts, Coupling—**
Cleveland Punch & Shear Works Co., Cleveland, O.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
- Nuts, Eye—**
Billings & Spencer Co., Hartford, Ct.
- Nuts, Finished Case Hardened—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anthony Screw Co., Worcester, Mass.
Detroit Screw Works, Detroit, Mich.
Graham Nut Co., Pittsburgh, Pa.
Hartford Machine Screw Co., Hartford, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
National Bolt & Nut Co., Pittsburgh, Pa.
New Haven Machine Screw Co., New Haven, Ct.
Rhode Island Tool Co., Providence, R. I.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
- Nuts, Hexagon Brass—**
Detroit Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Ct.
- National-Acme Mfg. Co., Cleveland, O.**
New Haven Machine Screw Co., New Haven, Ct.
- Nuts, Hot Pressed—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
Grabler Mfg. Co., Cleveland, O.
Graham Nut Co., Pittsburgh, Pa.
Milton Mfg. Co., Milton, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
St. Louis Screw Co., St. Louis, Mo.
Shelton Co., Shelton, Ct.
- Nuts, Hot Punched—**
Detroit Screw Works, Detroit, Mich.
- Nuts, Joint—**
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
- Nuts, Knurled—**
Blake & Johnson Co., Waterbury, Ct.
Detroit Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Ct.
New Haven Machine Screw Co., New Haven, Ct.
Pratt & Whitney Co., Hartford, Ct.
- Nuts, Large, Forged—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
Fort Pitt Forge Co., Pittsburgh, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
New Castle Forge & Bolt Co., New Castle, Pa.
- Nuts, Lock—**
American Lock Nut Co., Oregon, Ill.
Detroit Screw Works, Detroit, Mich.
Grabler Mfg. Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Ct.
- National Tube Co., Pittsburgh, Pa.**
- Nuts, Machine Forged—**
Rhode Island Tool Co., Providence, R. I.
- Nuts, Piano Player and Organ, Leather—**
L. J. Barwood Co., Inc., Boston, Mass.
- Nuts, Pipe Check—**
Boston Bolt Co., Boston, Mass.
- Nuts, Pipe, Sleeve—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
- Nuts, Planer—**
Detroit Screw Works, Detroit, Mich.
- Nuts, Semi-Finished—**
American Iron & Steel Mfg. Co., Lebanon, Pa.
Anthony Screw Co., Worcester, Mass.
Detroit Screw Works, Detroit, Mich.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Graham Nut Co., Pittsburgh, Pa.
Hartford Machine Screw Co., Hartford, Ct.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
National Bolt & Nut Co., Pittsburgh, Pa.
New Haven Machine Screw Co., New Haven, Ct.
Rhode Island Tool Co., Providence, R. I.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
- Nuts, Semi-Finished and Case Hardened—**
Chicago Screw Co., 2 Canal St., Chicago, Ill.

Nuts, Special—

Worcester Pressed Steel Co., Worcester, Mass.

Nuts, Square and Hexagon—

American Bridge Co., of New York, 42 Broadway, New York.

American Iron & Steel Mfg. Co., Lebanon, Pa.

Anthony Screw Co., Worcester, Mass.

Atlas Bolt & Screw Co., Cleveland, O.

Clark Bros. Bolt Co., Milldale, Ct.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Grabler Mfg. Co., Cleveland, O.

Sam'l Hall's Sons, 229-233 West 10th St., New York.

Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Kirk-Latty Mfg. Co., Cleveland, O.

M. Lanz & Sons, Pittsburgh, Pa.

Milton Mfg. Co., Milton, Pa.

National Bolt & Nut Co., Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

New Haven Machine Screw Co., New Haven, Ct.

Phosphor Bronze Smelting Co., Ltd., 230 Washington Ave., Philadelphia.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

Rhode Island Tool Co., Providence, R. I.

Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

St. Louis Screw Co., St. Louis, Mo.

Upson Nut Co., Cleveland, O.

W. & S. Mfg. Co., Worcester, Mass.

Nuts, Thumb—

Atlas Bolt & Screw Co., Cleveland, O.

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Clark Bros. Bolt Co., Milldale, Ct.

Detroit Screw Works, Detroit, Mich.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Keystone Drop Forge Works, Chester, Pa.

Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.

Philadelphia Machine Screw Works, 624-626 Race St., Philadelphia, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

St. Louis Screw Co., St. Louis, Mo.

J. H. Williams & Co., Brooklyn, N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

Nuts, Wing—(See Nuts, Thumb.)**Oakum—**

Broderick & Bascom Rope Co., St. Louis.

A. Leachen & Sons Rope Co., St. Louis.

New York Cordage Co., 83-85 Wall St., New York.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Odometers—

Keuffel & Esser Co., 127 Fulton St., N. Y.

Veeder Mfg. Co., Hartford, Ct.

Office Wire—

(See Wires, Electrical.)

Oil and Molasses Gates—

(See Gates, Oil and Molasses.)

Oil Cans, &c.—(See Cans, &c.)**Oil Cloth, Paper Hangers' &c., Knives—**
(See Knives, Paper Hangers', Oil Cloth, &c.)**Oil, Core—**

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Oil, Cylinder Lubricating—

Power Specialty Co., 111 Broadway, N.Y.

Oil Drills—

(See Drills, Oil.)

Oil Equipment, Fuel—

(See Fuel Oil Equipment.)

Oil, Gun—

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Oil, Lubricating—

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Dearborn Drug & Chemical Works, Postal Telegraph Bldg., Chicago, Ill.

John H. Graham & Co., 113 Chambers St., New York.

Oil, Stone—

Pike Mfg. Co., Pike, N. H.

Oil Stone, Wheels—

(See Wheels, Oil Stone.)

Oil Wells, Machinery for

(See Pumping Oil Wells, Machinery for.)

Oil Well Supplies and Tools—

(See Well Supplies and Tools.)

Oilier Nozzles—

(See Nozzles, Oilier.)

Oiliers, Automobile

Maple City Mfg. Co., Monmouth, Ill.

Oiliers, Bicycle

Scovill Mfg. Co., Waterbury, Ct.

Oiliers, Engine—

American Tube & Stamping Co., Bridgeport, Ct.

Gem Mfg. Co., Pittsburgh, Pa.

Johnson Mfg. Co., Urbana, O.

Maple City Mfg. Co., Monmouth, Ill.

Wm. Powell Co., Cincinnati, O.

Oiliers, Locomotive Valve—

Maple City Mfg. Co., Monmouth, Ill.

Oiliers, Loose Pulley—

Gem Mfg. Co., Pittsburgh, Pa.

Lunkenheimer Co., Cincinnati, O.

Wm. Powell Co., Cincinnati, O.

Oiliers, Malleable Iron—

Hammer & Co., Branford, Ct.

Oiliers, Pump

Maple City Mfg. Co., Monmouth, Ill.

Oiliers, Shafting—

American Tube & Stamping Co., Bridgeport, Ct.

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Lunkenheimer Co., Cincinnati, O.

Ohio Brass Co., Mansfield, O.

Wm. Powell Co., Cincinnati, O.

Scovill Mfg. Co., Waterbury, Ct.

Oiliers, Spring—

American Tube & Stamping Co., Bridgeport, Ct.

Bridgeport Brass Co., 253 E'way, N. Y.

Gem Mfg. Co., Pittsburgh, Pa.

Hammer & Co., Branford, Ct.

Maple City Mfg. Co., Monmouth, Ill.

Scovill Mfg. Co., Waterbury, Ct.

Tower & Lyon Co., 96 Chambers St., New York.

Oiling Systems—
Burt Mfg. Co., Akron, O.

Old Material—
(See Material, Old.)

One Man Saws—
(See Saws, Mill, Muley, Crosscut, &c.)

Open Links—
(See Links, Repair and Lap.)

Openers, Bottle—
Eric Specialty Co., Erie, Pa.

Openers, Box and Crate—
Arcade Mfg. Co., Freeport, Ill.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
Kilborn & Bishop Co., New Haven, Ct.

Openers, Can—
American Cutlery Co., Chicago, Ill.
Arcade Mfg. Co., Freeport, Ill.
W. L. Barrett, Bristol, Ct.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
Columbia Grey Iron Co., Columbia, Pa.
Alfred Field & Co., 93 Chambers St., New York.

Fletcher, Terry & Co., Forestville, Ct.
Goodell Co., Antrim, N. H.
John H. Graham & Co., 113 Chambers St., New York.
Landers, Frary & Clark, New Britain, Ct.
Parker Wire Goods Co., Worcester, Mass.
Smith & Hemenway Co., 108-110 Duane St., New York.

Openers, Cigar Box—
American Cutlery Co., Chicago, Ill.
Dane, Stoddard & Co., Boston, Mass.
John H. Graham & Co., 113 Chambers St., New York.
Kilborn & Bishop Co., New Haven, Ct.

Openers, Egg—
(See Egg Openers.)

Openers, Letter—
American Cutlery Co., Chicago, Ill.
National Cutlery Co., Philadelphia, Pa.

Openers, Sash and Window—
G. Drouve Co., Bridgeport, Ct.

Openers, Skylight Window—
G. Drouve Co., Bridgeport, Ct.

Order Sheet Binders and Holders—
(See Binders and Holders, Order Sheet.)

Ore, Chrome—
American Refractories Co., Joliet, Ill.
Reed F. Blair & Co., Pittsburgh, Pa.
Harbison-Walker Refractories Co., Pittsburgh, Pa.
Frank Samuel, Harrison Bldg., Philadelphia, Pa.
C. Tennant Sons & Co., 76 William St., New York.

Ore Crushers, Washer Screws—
(See Crushers, Screws.)

Ore Handling Machinery—
Broderick & Bascom Rope Co., St. Louis.
Browning Engineering Co., Cleveland, O.
Brown Hoisting Machinery Co., Cleveland, O.
Dodge Coal Storage Co., Hunting Park Ave. and F. & E. Ry., Philadelphia, Pa.
A. Lechen & Sons Rope Co., St. Louis.

Wellman-Seaver-Morgan Co., Cleveland, O.

Ore, Iron—
La Belle Iron Works, Steubenville, O.
Oglebay, Norton & Co., Cleveland, O.
Pilling & Crane, Girard Bldg., Philadelphia, Pa.
Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Geo. G. Blackwell, Sons & Co., Ltd., The Albany, Liverpool, England.
Jerome Keeley & Co., 421 Chestnut St., Philadelphia, Pa.
Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.
J. Taitnall Lea & Co., 19 So. 12th St., Philadelphia, Pa.
J. J. Mohr, Bullitt Bldg., Philadelphia, Pa.
Frank Samuel, 15th and Market Sts., Philadelphia, Pa.
W. P. Snyder & Co., Pittsburgh, Pa.
Tod-Stambaugh Co., Cleveland, O.

Ore, Lead and Zinc—
American Metal Co., 52 Broadway, N. Y.

Ore, Manganese—
Frank Samuel, Harrison Bldg., Philadelphia, Pa.

Ore Shovels—
(See Shovels, Ore.)

Ores and Mattes, Copper—
American Metal Co., 52 Broadway, N. Y.

Organ Hardware—
(See Piano and Organ Hardware.)

Ornamental Clocks—
(See Clocks, Ornamental.)

Ornamental Iron, Brass and Bronze Work—
(See Iron, Brass and Bronze, Ornamental.)

Ornamental Sheet Metal Work—
(See Metal Specialties, Ornamental Sheet.)

Ornaments, Stove—
Mathews Mfg. Co., Worcester, Mass.

Ovens, Annealing—
J. D. Smith Foundry Supply Co., Cleveland, O.

Whiting Foundry Equipment Co., Harvey, Ill.

Ovens, Baking, Electric—
General Electric Co., Schenectady, N. Y.

Ovens, Baking, Gas Heated—
Emil E. Steiner, Newark, N. J.

Ovens, Baking, Wire Mill—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Ovens, Blueing, Wire Mill—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Ovens, Cabinet, Portable Baking—
G. S. Blodgett Co., Burlington, Vt.

Ovens, Coke—
American Refractories Co., Joliet, Ill.
S. R. Smythe Co., Pittsburgh, Pa.

Ovens, Core—
G. S. Blodgett Co., Burlington, Vt.

Byram & Co. Inc., Detroit, Mich.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

J. W. Faxon Co., 1201 N. Delaware Ave., Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Emil E. Steiner, Newark, N. J.
Whiting Foundry Equipment Co., Harvey,
Ill.

Ovens, Enameling—
American Gas Furnace Co., 23 John St.,
New York.

G. S. Blodgett Co., Burlington, Vt.
Cullen & Atkinson Co., Inc., Hartford,
Ct.

Emil E. Steiner, Newark, N. J.
Van Dorn Iron Works Co., Cleveland, O.

Ovens, Gas Enameling—
American Gas Furnace Co., 23 John St.,
New York.

Cullen & Atkinson Co., Inc., Hartford, Ct.
S. M. Howes Co., Boston, Mass.
Emil E. Steiner, Newark, N. J.

**Ovens, Gas, Gasoline and
Oil—**

Schneider & Trenkamp Division, American
Stove Co., Cleveland, O.

Ovens, Gas, Pastry—
S. M. Howes Co., Boston, Mass.

Overhanging Track Hooks—
(See Hooks, Overhanging Track.)

Overhead Tramways—
(See Tramways, Overhead.)

Ox Balls, Shoes, Yokes—
(See Balls, Shoes, Yokes.)

Ox Bow Pins—
(See Pins, Ox Bow.)

Oxidizing—
American Gas Machine Co., Albert Lea,
Minn.

Gray Iron Foundry Co., Reading Pa.
Raymond Mfg. Co., Corry, Pa.
W. & S. Mfg. Co., Worcester, Mass.

**Oxygen for Industrial Pur-
poses—**

Industrial Oxygen Co., Hanover Bank
Bldg., New York.

Oyster Knives, Rivets—
(See Knives, Rivets.)

Package Protectors—
(See Protectors, Package.)

Packing Boxes, Wood—
(See Boxes, Wood Packing.)

**Packing, Cup, Flange
and U—**

L. J. Barwood Co., Inc., Boston, Mass.

Jenkins Brothers, 71 John St., New York.

Chas. A. Schieren & Co., 37 Ferry St.,
New York.

Charles L. Stevens & Co., Detroit, Mich.

Watson-Stillman Co., 26 Cortlandt St.,
New York.

Packing, Elevator—

Charles L. Stevens & Co., Detroit, Mich.

**Packing, Hydraulic Leath-
er—**

L. J. Barwood Co., Inc., Boston, Mass.

Graton & Knight Mfg. Co., Worcester,
Mass.

Chas. L. Stevens & Co., Detroit, Mich.

**Packing, Iron Cement
Sheet—**

Smooth-On Mfg. Co., Jersey City, N. J.

**Packing, Jute, Hemp and
Flax—**

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

New York Cordage Co., 83-85 Wall St.,
New York.

Walsh's Sons & Co., Newark, N. J.

**Packing, Leather, Fiber,
Felt and Paper—**

L. J. Barwood Co., Inc., Boston, Mass.

**Packing, Metallic Valve
Rod—**

Power Specialty Co., 111 Broadway, New
York.

Packing, Oil Well—

American Well Works, Aurora, Ill.

New York Belting & Packing Co., 91-93
Chambers St., New York.

Charles L. Stevens & Co., Detroit, Mich.

**Packing, Pump, Automobile
and Bicycle—**

L. J. Barwood Co., Inc., Boston, Mass.

**Packing, Rubber Composi-
tion—**

Jenkins Bros., 71 John St., New York.

New York Belting & Packing Co., 91-93
Chambers St., New York.

**Packing, Rubber, Self
Cured—**

Springfield Tire & Rubber Co., Spring-
field, O.

**Packing, Valve Rod and
Piston—**

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

New York Belting & Packing Co., 91-93
Chambers St., New York.

New York Cordage Co., 83-85 Wall St.,
New York.

Charles L. Stevens & Co., Detroit, Mich.

Pad Locks—
(See Locks, Pad.)

Pads, Horse Shoe, Leather—

Graton & Knight Mfg. Co., Worcester,
Mass.

**Pail and Parcel Handle Au-
tomatic Machinery—**

Peter Gerlach Co., Cleveland, O.

Pail Clamps, Ears—
(See Clamps, Ears.)

Pail Machinery and Tools—

Peter Gerlach Co., Cleveland, O.

Pails, Cream Separator—

Gem Mfg. Co., Boston, Mass.

Pails, Dairy—

Sturgis & Burn Mfg. Co., Chicago, Ill.

Pails, Factory—
(See Buckets, Factory.)

Pails, Fire—
(See Buckets, Fire.)

Pails, Foundry—

W. J. Clark Co., Salem, O.

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

Steel Basket Co., Cedar Rapids, Ia.

Pails, Galvanized—

Johnson Mfg. Co., Urbana, O.

Osborn Mfg. Co., Cleveland, O.

Steel Basket Co., Cedar Rapids, Ia.

Pails, Mortar—
(See Pails, Sand and Mortar.)

Pails, Prison—

Tower & Lyon Co., 95 Chambers St.,
New York.

Pails, Sand and Mortar—

Arrow Can Co., 35 Warren St., N. Y.

Pails, Steel—

W. J. Clark Co., Salem, O.

Steel Basket Co., Cedar Rapids, Ia.

Pails, Tar—

W. J. Clark Co., Salem, O.

Pails, Tin-
Johnson Mfg. Co., Urbana, O.

Paint and White wash
Spraying Machines-
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Deming Co., Salem, O.
F. E. Myers & Bro., Ashland, O.

Paint Burners, Cans-
(See Burners, Cans.)

Paint Machinery-
Poole Engineering & Machine Co., Baltimore, Md.

Paint Remover-
(See Varnish and Paint Remover.)

Paints, Asphalt-
National Roofing Co., Tonawanda, N. Y.

Paints, Graphite Asphalt-
National Roofing Co., Tonawanda, N. Y.

Paints, Roof-
Asphalt Ready Roofing Co., 136 Water St., New York.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

National Roofing Co., Tonawanda, N. Y.

Stowell Mfg. Co., Jersey City, N. J.

Paints, Structural-
Asphalt Ready Roofing Co., 136 Water St., New York.

Jos. Dixon Crucible Co., Jersey City, N. J.

National Roofing Co., Tonawanda, N. Y.

Stowell Mfg. Co., Jersey City, N. J.

Palms, Sailors' and Sail Makers'-
W. & J. Tiebout, 118 Chambers St., N. Y.

Panel Saws-
(See Saws, Hand, Panel, Back, &c.)

Pans, Acid-
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Pans, Annealing, Lead-
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Pans, Annealing, Steel-
W. J. Clark Co., Salem, O.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Pans, Candy-
John Chatillon & Sons, 85 Cliff St., N. Y.

Pans, Charging-
W. J. Clark Co., Salem, O.

Meehan Boiler & Construction Co., Lowellville, O.

Wm. B. Scaife & Sons Co., Pittsburgh.

Pans, Clay Mixing and Ore-
Thos. Carlin's Sons, Allegheny, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Pans, Conveyor-
Avery Stamping Co., Cleveland, O.

W. J. Clark Co., Salem, O.

Link-Belt Co., Philadelphia, Pa.

Pans, Drip-
(See Cups, Drip Shafting.)

Pans, Dripping-
Bronson-Walton Co., Cleveland, O.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Pans, Dry-
W. J. Clark Co., Salem, O.

Meehan Boiler & Construction Co., Lowellville, O.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Pans, Dust-
Delphos Mfg. Co., Delphos, O.

Pans, Fry-
Avery Stamping Co., Cleveland, O.

Pans, Gem-
S. Cheney & Son, Manlius, N. Y.

Delphos Mfg. Co., Delphos, O.

Pans, Grinding-
Thos. Carlin's Sons, Allegheny, Pa.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

W. J. Clark Co., Salem, O.

Terrell's Equipment Co., Grand Rapids, Mich.

Pans, Lathe-
W. J. Clark Co., Salem, O.

Terrell's Equipment Co., Grand Rapids, Mich.

Pans, Medicine-
W. J. Clark Co., Salem, O.

Pans, Pressed Galvanizing-
American Bridge Co. of New York, 42 Broadway, New York.

Pans, Refrigerator Drip-
Gem Mfg. Co., Boston, Mass.

Pans, Shop-
W. J. Clark Co., Salem, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Pans, Steel, to Order-
W. J. Clark Co., Salem, O.

Pans, Sugar-
Stuart & Peterson Co., Burlington, N. J.

Pans, Tempering Clay-
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Pans, Vacuum-
E. B. Badger & Sons Co., Boston, Mass.

Buffalo Forge Co., Buffalo, N. Y.

Stuart & Peterson Co., Burlington, N. J.

Pans, Wire-
Buffalo Wire Works Co., Buffalo, N. Y.

Pantry Steps-
(See Steps, Pantry.)

Paper, Blue Print-
Keuffel & Esser Co., 127 Fulton St., N. Y.

Paper, Boxes, Cutting Knives, &c.
(See Boxes, Knives, &c.)

Paper, Building, Sheathing-
Samuel Cabot, Inc., Boston, Mass.

Paper Calendars-
(See Calendars, Paper.)

Paper, Carborundum-
Carborundum Co., Niagara Falls, N. Y.

Paper, Card and Book Racks-
(See Racks, Card, Book and Paper.)

Paper Cutters-
(See Cutters, Paper.)

Paper, Drawing-
Keuffel & Esser Co., 127 Fulton St., N. Y.

Paper Files-
(See Desk Specialties.)

Paper, Fireproofing-
Samuel Cabot, Inc., Boston, Mass.

Paper Hangers' Knives, Shears-
(See Knives, Shears)

Paper, Insulating-
Samuel Cabot, Inc., Boston, Mass.

- Paper, Micrometers for—**
(See Micrometers, Paper.)
- Paper, Sand, Garnet, Emery, &c.—**
Baeder, Adamson & Co., 210 Chestnut St., Philadelphia, Pa.
- Paper Shells, Weights—**
(See Shells, Weights.)
- Paper, Sound Deadening—**
Samuel Cabot, Inc., Boston, Mass.
- Papers, Photoprinting—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Papers, Profile—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Parallel Clamps, Rules, Vises—**
(See Clamps, Rules, Vises.)
- Parallels—**
L. S. Starrett Co., Athol, Mass.
- Parasol Fixtures, Baby Carriage, Go-Cart and Folding Cart—**
E. E. Wagner Mfg. Co., North Milwaukee, Wis.
- Parers, Apple and Potato—**
Goodell Co., Antrim, N. H.
- Kilbourne Mfg. Co., Troy, N. Y.**
- Parker Wire Goods Co., Worcester, Mass.**
- Reading Hardware Co., Reading, Pa.**
- Parers, Hoof—**
(See Knives, Farrier.)
- Parers, Orange—**
Goodell Co., Antrim, N. H.
- Park Fountains—**
(See Fountains, Park, Lawn, &c.)
- Parting Tools—**
(See Tools, Parting.)
- Partitions, Metal—**
Youngstown Iron & Steel Roofing Co., Youngstown, O.
(See also Iron, Brass and Bronze, Ornamental.)
- Partitions, Wire—**
Buffalo Wire Works Co., Inc., Buffalo, N. Y.
- Nimmo Fence & Wire Co., Norwood, O.**
- Paste, Asbestos Dry—**
Fuller Mfg. Co., St. Paul, Minn.
- Paste, Dry, Cold Water—**
Fuller Mfg. Co., St. Paul, Minn.
- Paste, Razor—**
Alfred Field & Co., 93 Chambers St., New York.
- Paste, Wet—**
Fuller Mfg. Co., St. Paul, Minn.
(See Pipe, Patches.)
- Patch Bolts—**
(See Bolts, Boiler, Patch.)
- Patches, Pipe—**
(See Pipe, Patches.)
- Patent Attorneys—**
Howson & Howson, 32 So. Broad St., Philadelphia, Pa.
- E. B. Stocking, Washington, D. C.**
- Pattern Letters—**
(See Letters, Pattern.)
- Pattern Makers' Dowels—**
(See Dowels, Pattern Makers.)
- Pattern Makers' Machinery—**
Badger State Machine Co., Janesville, Wis.
- Fox Machine Co., Grand Rapids, Mich.**
- Graves, Klusman & Co., Cincinnati, O.**
- Hobbs Mfg. Co., Worcester, Mass.**
- Oliver Machinery Co., Grand Rapids, Mich.**
- MERCHANTS.**
- Carlin Machinery & Supply Co., Inc., Allegheny, Pa.**
- Hill, Clarke & Co., Boston, Mass.**
- J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.**
- Wickes Bros., Saginaw, Mich.**
- Pattern Makers' Supplies—**
S. Obermayer Co., Cincinnati, O.
- Oliver Machinery Co., Grand Rapids, Mich.**
- Pattern Making—**
Abendroth & Root Mfg. Co., Newburgh, N. Y.
- Acme Steel & Malleable Iron Works, Buffalo, N. Y.**
- Badger State Machine Co., Janesville, Wis.**
- Bancroft & Co., Philadelphia, Pa.**
- Bethlehem Foundry & Machine Co., South Bethlehem, Pa.**
- Blake & Johnson Co., Waterbury, Ct.**
- Case Mfg. Co., Columbus, O.**
- S. Cheney & Son, Manlius, N. Y.**
- Cleveland Punch & Shear Works Co., Cleveland, O.**
- C. A. Dreisbach Foundry & Machine Co., New Haven, Ct.**
- Charles F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.**
- Empire Foundry Co., New Brunswick, N. J.**
- Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.**
- Forest City Foundry & Mfg. Co., Cleveland, O.**
- Wm. Gardam & Son, Inc., 221 Fulton St., New York.**
- Heindel Mfg. Co., Hanover, Pa.**
- Hopson & Chapin Mfg. Co., New London, Ct.**
- R. E. Kidder, Worcester, Mass.**
- Mummert, Wolf & Dixon Co., Hanover, Pa.**
- J. J. Ryan & Co., 68-74 W. Monroe St., Chicago, Ill.**
- M. I. Smith, Bristol, Ct.**
- Susquehanna Casting Co., Wrightsville, Pa.**
- Wellman-Seaver-Morgan Co., Cleveland, O.**
- York Pattern Works, York, Pa.**
- Pattern Making, Metal—**
Acme Steel & Malleable Iron Works, Buffalo, N. Y.
- Badger State Machine Co., Janesville, Wis.**
- Bancroft & Co., Philadelphia, Pa.**
- Bethlehem Foundry & Machine Co., South Bethlehem, Pa.**
- Blake & Johnson Co., Waterbury, Ct.**
- Clark Novelty Co., Rochester, N. Y.**
- Columbia Grey Iron Co., Columbia, Pa.**
- Grant Mfg. & Machine Co., Bridgeport, Ct.**
- Hubley Mfg. Co., Lancaster, Pa.**
- R. E. Kidder, Worcester, Mass.**
- W. B. Knight Machinery Co., St. Louis, Mo.**
- Palmer & DeMooy Foundry Co., Cleveland, O.**
- Susquehanna Casting Co., Wrightsville, Pa.**
- York Pattern Works, York, Pa.**

Patterns, Architectural—
York Pattern Works, York, Pa.
Patterns for Name Plates—
Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Paving Hammers—
(See Hammers, Paving.)
Pawls, Ratchet—
Boston Gear Works, Norfolk Downs, Mass.
Peavies—
Peter Gerlach Co., Cleveland, O.
Pedal Machines, Bicycle—
Garvin Machine Co., Spring & Varick Sts.,
New York.
Pedals, Bicycle—
John R. Keim Mills, Inc., Buffalo, N. Y.
Pedals, Piano—
Susquehanna Casting Co., Wrightsville,
Pa.
Peg Awls—
(See Awls, Peg.)
Pen Wipers—
(See Desk Specialties, Silver Plated.)
**Pencil Attachments, Di-
vider**—
Keuffel & Esser Co., 127 Fulton St., N. Y.
Tower & Lyon Co., 95 Chambers St.,
New York.
Pencils, Lead—
Jos. Dixon Crucible Co., Jersey City, N. J.
Keuffel & Esser Co., 127 Fulton St., N. Y.
Pens, Steel—
Alfred Field & Co., 93 Chambers St.,
New York.
Penstocks—
Franklin Boiler Works Co., Troy, N. Y.
Humphrey Machine Co., Keene, N. H.
E. Keeler Co., Williamsport, Pa.
Poole Engineering & Machine Co., Balti-
more, Md.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.
**Peppers and Salts, Silver
and Silver Plated**—
International Silver Co., Meriden, Ct.
New York.
Percolators—
Stuart & Peterson Co., Burlington, N. J.
Percolators, Coffee—
International Silver Co., Meriden, Ct.
Landers, Frary & Clark, New Britain,
Ct.
Percolators, Electric Coffee—
General Electric Co., Schenectady, N. Y.
Percussion Caps—
(See Caps, Percussion.)
Perforated Brass, Metal—
(See Brass, Metal.)
Perforated Metals—
(See Metals, Perforated Sheet.)
Perforated Sheet Metals—
(See Metals, Perforated Sheet.)
Perforating Machines—
E. W. Bliss Co., Brooklyn, N. Y.
Hilles & Jones Co., Wilmington, Del.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.
R. Woodman Mfg. & Supply Co., Boston.
Perforators, Check—
E. B. Stimpson Co., 31 Spruce St., N. Y.
Pestles—
(See Mortars and Pestles.)
Pew Book Racks—
(See Racks, Pew Book.)

Phonographs—
(See Agents, Phonograph.)
**Phosphate Rock Ma-
chinery**—
Poole Engineering & Machine Co., Balti-
more, Md.
Phosphor-Bronze—
(See Bronze, Phosphor.)
Phosphor-Bronze Ingots—
(See Ingots.)
Phosphor-Tin—
(See Tin, Phosphor.)
Phosphorizers—
Joseph Dixon Crucible Co., Jersey City,
N. J.
McCullough-Dalzell Crucible Co., Pitts-
burgh, Pa.
Phosphorus—
Crescent Phosphorized Metal Co., Phila-
delphia, Pa.
Photo Engraving—
(See Engraving, Photo and Wood.)
Photograph Frames—
(See Frames, Photograph.)
Piano Action Machinery—
A. H. Nilson Machine Co., Bridgeport,
Ct.
**Piano and Organ Hard-
ware**—
Blake & Johnson Co., Waterbury, Ct.
Piano Bellows, Lamps—
(See Bellows, Lamps.)
Piano Frames—
Henry Perkins Co., Bridgewater, Mass.
Piano Parts, Steel—
Clark Novelty Co., Rochester, N. Y.
Pickers, Flower and Fruit—
Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.
Parker Wire Goods Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Com-
merce St., Philadelphia, Pa.
Wire Goods Co., Worcester, Mass.
Pickers, Loom—
Graton & Knight Mfg. Co., Worcester,
Mass.
Picket Chains—
(See Chains, Picket.)
Pickets, Wire—
Cyclone Fence Co., Waukegan, Ill.
Pickle Casters—
(See Casters, Silver Plated.)
Pickling Machines—
Mesta Machine Co., Pittsburgh, Pa.
Picks and Awls, Ice—
Arcade Mfg. Co., Freeport, Ill.
Ducharmes & Co., Shelburne Falls, Mass.
Erie Specialty Co., Erie, Pa.
Fanner Mfg. Co., Cleveland, O.
Gifford-Wood Co., Arlington, Mass.
Griswold Mfg. Co., Erie, Pa.
Landers, Frary & Clark, New Britain, Ct.
H. H. Mayhew Co., Shelburne Falls,
Mass.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
Smith & Hemenway Co., 108-110 Duane
St., New York.
Snell Mfg. Co., Fiskdale, Mass.
Stanley Rule & Level Co., New Britain,
Ct.
James Swan Co., Seymour, Ct.
Tuck Mfg. Co., Brockton, Mass.
Wrightsville Hardware Co., Wrightsville,
Pa.

Picks and Mattocks—
Hubbard & Co., Pittsburgh, Pa.
Picks, Boiler—
Hubbard & Co., Pittsburgh, Pa.
Picks, Coal—
Howard Iron & Tool Co., Bellefonte, Pa.
Hubbard & Co., Pittsburgh, Pa.
Picks, Concrete—
Hubbard & Co., Pittsburgh, Pa.
Picks, Contractors—
Hubbard & Co., Pittsburgh, Pa.
Picks, Drifting—
Hubbard & Co., Pittsburgh, Pa.
Picks, Ice—
(See Ice Harvesting Tools.)
Picks, Locomotive Coal—
Hubbard & Co., Pittsburgh, Pa.
Picks, Mill—
Hubbard & Co., Pittsburgh, Pa.
Picks, Mining—
Hubbard & Co., Pittsburgh, Pa.
Picks, Nut—
American Cutlery Co., Chicago, Ill.
International Silver Co., Meriden, Ct.
Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.
Landers, Frary & Clark, New Britain, Ct.
Picks, Ore and Rock—
Hubbard & Co., Pittsburgh, Pa.
Picks, Poll—
Hubbard & Co., Pittsburgh, Pa.
Picks, Puncher—
Hubbard & Co., Pittsburgh, Pa.
Picks, Railroad—
(See Picks and Mattocks.)
Picks, Stone and Quarry—
Hubbard & Co., Pittsburgh, Pa.
Picks, Surface—
Hubbard & Co., Pittsburgh, Pa.
Picks, Tamping—
Hubbard & Co., Pittsburgh, Pa.
Picture Chains, Cord,
Knobs, Nails—
(See Chains, Cord, Knobs, Nails.)
Pie Racks, Tins—
(See Racks, Bakery, Tins.)
Piezometers—
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Plasters, Panels, &c.—
(See Architectural Sheet Metal Work.)
Pile Drivers—
(See Drivers, Pile.)
Piling, Sheet Steel—
Carnegie Steel Co., Pittsburgh, Pa.
National Tube Co., Pittsburgh, Pa.
Pillars, Gas, Brass—
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
Pillow Blocks—
(See Blocks, Pillow.)
Pin Machinery—
Baird Machine Co., Oakville, Ct.
E. J. Manville Machine Co., Waterbury, Ct.
Pin Machines, Badge—
Baird Machine Co., Oakville, Ct.
Pin Machines, Safety—
Baird Machine Co., Oakville, Ct.
E. J. Manville Machine Co., Waterbury, Ct.
Pin Sticking Machines—
Baird Machine Co., Oakville, Ct.
Pin Vises—
(See Vises, Hand.)
Pin Wire—
(See Wire, Pin.)

Pincers—
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
Heller Bros. Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Louis Sacks, Newark, N. J.
Wrightsville Hardware Co., Wrightsville, Pa.
Pinch Bars—
(See Pushers, Car.)
Pinion Cutters, Automatic—
American Watch Tool Co., Waltham, Mass.
Dwight Slate Machine Co., Hartford, Ct.
Sloan & Chace Mfg. Co., Ltd., Newark, N. J.
Pinions for Electric Railways—
E. W. Bliss Co., Brooklyn, N. Y.
Pinions, Roll—
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.
Seaman-Sleeth Co., Pittsburgh, Pa.
Pins, Air Brake—
American Iron & Steel Mfg. Co., Lebanon, Pa.
Pins, Anti-Friction—
Kirk-Latty Mfg. Co., Cleveland, O.
Pins, Belaying—
W. & J. Tiebout, 115 Chambers St., N. Y.
Pins, Bending—
Kraeuter & Co., Inc., Newark, N. J.
Pins, Blanket—
F. E. Kohler & Co., Canton, O.
Pins, Bowling—
(See Balls and Pins.)
Pins, Car Coupling—
Cleveland City Forge & Iron Co., Cleveland, O.
Keystone Drop Forge Works, Chester, Pa.
Standard Chain Co., Pittsburgh, Pa.
Pins, Caster—
Atlas Bolt & Screw Co., Cleveland, O.
Ohio Nut & Bolt Co., Berea, O.
Pins, Clothes—
Demeritt & Palmer Packing Co., Waterbury, Vt.
C. C. Putnam & Son, Putnamville, Vt.
United States Clothes Pin Co., Montpelier, Vt.
Pins, Clothes, Spring—
Demeritt & Palmer Packing Co., Waterbury, Vt.
C. C. Putnam & Son, Putnamville, Vt.
United States Clothes Pin Co., Montpelier, Vt.
Pins, Crank—
Bethlehem Steel Co., So. Bethlehem, Pa.
Erie Forge Co., Erie, Pa.
B. M. Jones & Co., Inc., Boston, Mass.
Thomas Prosser & Son, 26 Platt St., N. Y.
Tindell-Morris Co., Eddystone, Pa.
Pins, Dowel—
American Steel & Wire Co., The Rookery, Chicago, Ill.
A. G. Butler, 284-286 Pearl St., N. Y.
Grand Crossing Tack Co., Grand Crossing, Ill.
Milwaukee Tack Co., Milwaukee, Wis.
Oliver Machinery Co., Grand Rapids, Mich.
Parker Wire Goods Co., Worcester, Mass.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
Pittsburgh Steel Co., Pittsburgh, Pa.
E. H. Titchener & Co., Binghamton, N. Y.

Pins, Drapery—
Turner & Stanton Co., Norwich, Ct.

Pins, Drawing—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Pins, Drift—
Cleveland Punch & Shear Works Co., Cleveland, O.

Pins, Druggist—
Turner & Stanton Co., Norwich, Ct.

Pins, Escutcheon, Brass and Iron—
American Steel & Wire Co., The Bookery, Chicago, Ill.

Blake & Johnson Co., Waterbury, Ct.
Bridgeport Brass Co., 253 B'way, N. Y.
Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.

John Hassall, Brooklyn, N. Y.
Milwaukee Tack Co., Milwaukee, Wis.
Parker Wire Goods Co., Worcester, Mass.
Plume & Atwood Mfg. Co., Waterbury, Ct.

Arthur T. Rutter & Co., 256 Broadway, New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Turner & Stanton Co., Norwich, Ct.
Wire Goods Co., Worcester, Mass.

Pins, Escutcheon, Copper—
John Hassall, Brooklyn, N. Y.

Pins, Escutcheon, German Silver—

John Hassall, Brooklyn, N. Y.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Pins, Glass Push—
Turner & Stanton Co., Norwich, Ct.

Pins, Hair—
Blake & Johnson Co., Waterbury, Ct.

Pins, Hinge—
Atlas Bolt & Screw Co., Cleveland, O.
Ohio Nut & Bolt Co., Berea, O.

Pins, Insulator Expansion—
Diamond Expansion Bolt Co., 9-15 Murray St., New York.

Star Expansion Bolt Co., 147-149 Cedar St., New York.

Pins, Knuckle—
American Iron & Steel Mfg. Co., Lebanon, Pa.

American Steel Foundries, 42 Broadway, New York.

Pittsburgh Forge & Iron Co., Pittsburgh, Pa.

Pins, Lariat and Picket—
 (See Lariat and Picket Pins.)

Pins, Ox Bow—
Peck, Storey & Wilcox Co., 27 Murray St., New York.

Pins, Piano, Brass and Aluminum—
Bridgeport Brass Co., 253 Broadway, N. Y.

Pins, Pinch Head, Pointed, &c.—

Kirk-Latty Mfg. Co., Cleveland, O.

Pins, Pole—
 (See Telegraph and Telephone Supplies.)

Pins, Regalia—
Wire Goods Co., Worcester, Mass.

Pins, Register—
Atlas Bolt & Screw Co., Cleveland, O.

Ohio Nut & Bolt Co., Berea, O.

Pins, Rolling—
Wm. R. Hartigan, Collinsville, Ct.
John Sommer's Son, Newark, N. J.

Pins, Sash—
Grand Crossing Tack Co., Grand Crossing, Ill.

W. & J. Tiebout, 118 Chambers St., N. Y.

Pins, Shelf—
Parker Wire Goods Co., Worcester, Mass.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Wire Goods Co., Worcester, Mass.

Pins, Taper—
Anthony Screw Co., Worcester, Mass.
Chicago Screw Co., 2 Canal St., Chicago, Ill.

Detroit Screw Works, Detroit, Mich.

Hartford Machine Screw Co., Hartford, Ct.

Morse Twist Drill & Machine Co., New Bedford, Mass.

New Haven Machine Screw Co., New Haven, Ct.

Pratt & Whitney Co., Hartford, Ct.

St. Louis Screw Co., St. Louis, Mo.

Standard Tool Co., Cleveland, O.

Worcester Machine Screw Co., Worcester, Mass.

Pins, Ten—
 (See Balls and Pins.)

Pins, Thole—
Piqua Handle & Mfg. Co., Piqua, O.

Pipe Bending and Cutting—
Best Mfg. Co., Pittsburgh, Pa.

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

National Pipe Bending Co., New Haven, Ct.

Walworth Mfg. Co., Boston, Mass.

Whitlock Coil Pipe Co., Hartford, Ct.

Pipe Bending Machines—
Niles-Bement-Pond Co., 111 Broadway, New York.

Standard Engineering Co., Ellwood City, Pa.

Stoever Foundry & Mfg. Co., Lebanon, Pa.

Pipe, Blast—
Thos. W. Irwin Mfg. Co., Allegheny, Pa.

Pipe, Brass and Copper—
 (See Tubing, Brass and Copper.)

Pipe Brushes—
S. Obermayer Co., Cincinnati, O.

Pipe, Cast Iron—
American Cast Iron Pipe Co., Birmingham, Ala.

Central Foundry Co., 37 Wall St., N. Y.

J. K. Dimmick & Co., New Land Title Bldg., Philadelphia, Pa.

Dimmick Pipe Co., Birmingham, Ala.

C. A. Dreishach Foundry & Machine Co., New Haven, Ct.

Lynchburg Foundry Co., Lynchburg, Va.

Chas. Millar & Son Co., Utica, N. Y.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York.

William B. Walter & Co., Marquette Bldg., Chicago, Ill.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Pipe Coils, Cutters, &c.—
 (See Coils, Cutters, &c.)

Pipe, Conductor—

(See Conductors, Pipe.)

Pipe Cross Rolls—

Taylor-Wilson Mfg. Co., McKees Rocks, Pa.

Pipe Cutters—

(See Cutters, Pipe and Tube.)

Pipe Cutting and Threading Machines—Acme Machinery Co., Cleveland, O.
Bignall & Keeler Mfg. Co., Edwardsville, Ill.

Curtis & Curtis Co., Bridgeport, Ct.

Fox Machine Co., Grand Rapids, Mich.

Hoefler Mfg. Co., Freeport, Ill.

Jarecki Mfg. Co., Erie, Pa.

Merrell Mfg. Co., Toledo, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

D. Saunders' Sons, Yonkers, N. Y.

Standard Engineering Co., Ellwood City, Pa.

Stoever Foundry & Mfg. Co., Lebanon, Pa.

Taylor-Wilson Mfg. Co., McKees Rocks, Pa.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.

McDowell & Co., Allegheny, Pa.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Marshall & Huscchart Machinery Co., 62 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

New York Machinery Depot, 120 Broadway, New York.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Vandyck Churchill Co., 8 Dey St., N. Y. A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Pipe Cutting, to Order—

Eagle Metal & Supply Co., Brooklyn, N. Y.

Pipe, Doubled Refined Puddled Iron—

Youngstown Sheet & Tube Co., Youngstown, O.

Pipe, Flanged—

Abendroth & Root Mfg. Co., Newburgh, N. Y.

American Cast Iron Pipe Co., Birmingham, Ala.

Lynchburg Foundry Co., Lynchburg, Va.

Pipe, Flexible Joint—

United States Cast Iron Pipe & Foundry Co., 71 Broadway, New York.

Pipe, Furnace—

S. M. Howes Co., Boston, Mass.

Pipe, Galvanized—

Abendroth & Root Mfg. Co., Newburgh, N. Y.

American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

La Belle Iron Works, Steubenville, O.

National Tube Co., Pittsburgh, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

Pipe, Galvanized Riveted—

Abendroth & Root Mfg. Co., Newburgh, N. Y.

American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh.

Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

Pipe Hanger Tongs—

(See Tongs, Pipe Hanger.)

Pipe Hook Plates, Steel—

(See Plates, Pipe Hook, Steel.)

Pipe, Hydraulic, Steel Riveted—

American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.

Pipe, Lead—

Chas. Millar & Son Co., Utica, N. Y.

Pipe, Line and Drive—

La Belle Iron Works, Steubenville, O.

Reliance Tube Co., Ltd., Pittsburgh, Pa.

Pipe Machinery, Briar—

Chas. Leffler & Co., Brooklyn, N. Y.

Pipe Machines, Stove—

Alexander Bros., Carnegie, Pa.

Pipe, Merchant—

Abendroth & Root Mfg. Co., Newburgh, N. Y.

American Cast Iron Pipe Co., Birmingham, Ala.

Beat Mfg. Co., Pittsburgh, Pa.

Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.

La Belle Iron Works, Steubenville, O.

National Tube Co., Pittsburgh, Pa.

Reliance Tube Co., Ltd., Pittsburgh, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

Edgar M. Moore & Co., Pittsburgh, Pa.

Frank Samuel, 15th and Market Sts., Philadelphia, Pa.

Scully Steel & Iron Co., 69 No. Halsted St., Chicago, Ill.

Shook & Fletcher, Birmingham, Ala.

Jacob Ullman, Buffalo, N. Y.

Wickes Bros., Saginaw, Mich.

Woodward, Wight & Co., Ltd., New Orleans, La.

Pipe Mill Machinery—

Fawcus Machine Co., Pittsburgh, Pa.

Stoever Foundry & Mfg. Co., Lebanon, Pa.

Taylor-Wilson Mfg. Co., McKees Rocks, Pa.

United Engineering & Foundry Co., Pittsburgh, Pa.

Pipe Mill Machinery, Clay—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Pipe, Oil Well—

La Belle Iron Works, Steubenville, O.

National Tube Co., Pittsburgh, Pa.

Reliance Tube Co., Ltd., Pittsburgh, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

Pipe Patches—

Smith & Hemenway Co., 108-110 Duane St., New York.

Pipe Plants, Riveted—
Hilles & Jones Co., Wilmington, Del.
Pipe Polishing Machines—
Standard Engineering Co., Ellwood City,
Pa.

Pipe, Riveted Steel—
Abendroth & Root Mfg. Co., Newburgh,
N. Y.

American Bridge Co. of New York, 42
Broadway, New York.

American Spiral Pipe Works, 1173-1201 S.
Paulina St., Chicago, Ill.

E. Keeler Co., Williamsport, Pa.
Meehan Boiler & Construction Co., Low-
ellville, O.

Pennsylvania Engineering Works, New
Castle, Pa.

Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.

Pittsburgh Steel Construction Co., Pitts-
burgh, Pa.

Pittsburgh Valve, Foundry & Construc-
tion Co., Pittsburgh, Pa.

Riter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.

Stirling Blower & Pipe Mfg. Co., Hart-
ford, Ct.

Tudor Boiler Mfg. Co., Cincinnati, O.
Warren City Tank & Boiler Works,
Warren, O.

Pipe, Sewer and Culvert—
Chas. Millar & Son Co., Utica, N. Y.

Pipe, Sewer, Machinery—
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Pipe Sleeve Nuts—
(See Nuts, Pipe Sleeve.)

**Pipe Socket Reaming Ma-
chines—**

National Machinery Co., Tiffin, O.
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

**Pipe Socket Tapping Ma-
chines—**

National Machinery Co., Tiffin, O.
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

Pipe, Spiral Riveted—

American Spiral Pipe Works, 1173-1201
Paulina St., Chicago, Ill.

Pipe, Steel—
Abendroth & Root Mfg. Co., Newburgh,
N. Y.

American Spiral Pipe Works, 1173-1201 S.
Paulina St., Chicago, Ill.

Best Mfg. Co., Pittsburgh, Pa.
E. Keeler Co., Williamsport, Pa.

La Belle Iron Works, Steubenville, O.
National Tube Co., Pittsburgh, Pa.

Riter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.

Youngstown Sheet & Tube Co., Youngs-
town, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Edmund W. Mudge & Co., Pittsburgh,
Pa.

Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.

Shook & Fletcher, Birmingham, Ala.
Wickes Bros., Saginaw, Mich.

Pipe, Stove—
Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

S. M. Howes Co., Boston, Mass.

Ohio Stove Pipe & Mfg. Co., New Phila-
delphia, O.

**Pipe Straightening Ma-
chines—**

(See Straightening Machines, Pipe.)
Pipe Strainers, Conductor—

(See Strainers, Conductor, Pipe.)
Pipe Testing Machines—

(See Testing Presses, Pipe.)
Pipe Unions—(See Unions, Pipe.)

**Pipe Wrenches, Adjustable
S—**

(See Wrenches, Adjustable S Pipe.)
Pipe, Wrought Iron—

(See Pipe, Merchant.)
Pipes, Blow—

Penn Engineering Works, New Castle, Pa.

Pipes, Chain—
Thomas Laughlin Co., Portland, Me.

W. & J. Tiebout, 118 Chambers St., N. Y.
Wilcox, Crittenden & Co., Inc., Middle-
town, Ct.

Piping Work, Galvanized—
Abendroth & Root Mfg. Co., Newburgh,
N. Y.

Stirling Blower & Pipe Mfg. Co., Hart-
ford, Ct.

Pistol Pockets, Rubber—
(See Pockets, Pistol, Rubber.)

Pistols and Revolvers—
Colt's Patent Fire Arms Co., Hartford,
Ct.

Remington Arms Co., 313 Broadway, N. Y.
Otis A. Smith, Rockfall, Ct.

J. Stevens Arms & Tool Co., Chicopee
Falls, Mass.

Piston Packing, Rings.

(See Packing, Rings, Rods.)
Pitcher Spout Pumps—

(See Pumps, Cistern, Pitcher, Spout, &c.)
**Pitchers, Beer, Wine, Syrup,
&c., Silver and Silver
Plated—**

International Silver Co., Meriden, Ct.

**Pitching Machines, Barrel
and Keg—**

Pawling & Harnischfeger, Milwaukee, Wis.

Pits, Soaking—
G. W. McClure, Son & Co., Pittsburgh.

Wm. Swindell & Bros., Pittsburgh, Pa.

**Pitters, Fruit and Vege-
table—**

Mosteller Mfg. Co., 79 Dearborn St., Chi-
cago, Ill.

Pivots, Door—
Joseph Bardsley, 147 Baxter St., N. Y.

Bommer Bros., Brooklyn, N. Y.
Lawson Mfg. Co., 40 Dearborn St., Chi-
cago, Ill.

Plasters—
North Bros. Mfg. Co., Philadelphia, Pa.

Plane Gauges, Irons.

(See Gauges, Irons, Handles.)
Plane Stops—

Chapin-Stephens Co., Pine Meadow, Ct.

**Planer Centers, Chucks,
&c.—**

(See Centers, Chucks, &c.)
Planer Knife Grinders—

(See Grinders.)
Planers, Armor Plate—

Niles-Bement-Pond Co., 111 Broadway,
New York.

Planers, Bevel Gear—
Gleason Works, Rochester, N. Y.

Planers, Buss—
Badger State Machine Co., Janesville, Wis.
Crescent Machine Co., Leetonia, O.
Fox Machine Co., Grand Rapids, Mich.
Greaves, Klusman & Co., Cincinnati, O.
Niles-Bement-Pond Co., 111 Broadway, New York.
Oliver Machinery Co., Grand Rapids, Mich.

MERCHANTS.
Hill, Clarke & Co., Boston, Mass.
Wickes Bros., Saginaw, Mich.

Planers, Duplex, Cut Both Ways—
Niles-Bement-Pond Co., 111 Broadway, New York.
Powell Tool Co., Worcester, Mass.
Woodward & Powell Planer Co., Worcester, Mass.

Planers, Electrically Driven—
American Tool Works Co., Cincinnati, O.
Planers, Fluting Feed Rolls, for Textile Machinery—
Woodward & Powell Planer Co., Worcester, Mass.

Planers, Frog and Switch—
Mark Flather Planer Co., Nashua, N. H.
Powell Tool Co., Worcester, Mass.
Woodward & Powell Planer Co., Worcester, Mass.

Planers, Gear—
Gleason Works, Rochester, N. Y.
Planers, Locomotive Cylinder and Frame—
Morton Mfg. Co., Muskegon Heights, Mich.

Powell Tool Co., Worcester, Mass.
Woodward & Powell Planer Co., Worcester, Mass.

Planers, Locomotive Rod—
Powell Tool Co., Worcester, Mass.
Woodward & Powell Planer Co., Worcester, Mass.

Planers, Metal—
American Tool Works Co., Cincinnati, O.
Cincinnati Planer Co., Cincinnati, O.
Cincinnati Shaper Co., Cincinnati, O.
Detrick & Harvey Machine Co., Baltimore, Md.

Mark Flather Planer Co., Nashua, N. H.
Garvin Machine Co., Spring and Varick Sts., New York.
Edwin Harrington, Son & Co. (Inc.), Philadelphia, Pa.
Hilles & Jones Co., Wilmington, Del.
J. J. McCabe, 14 Dey St., New York.
New Haven Mfg. Co., New Haven, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.

Powell Tool Co., Worcester, Mass.
Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.
W. A. Wilson Machine Co., Rochester, N. Y.
Woodward & Powell Planer Co., Worcester, Mass.

MERCHANTS.
Baird Machinery Co., Pittsburgh, Pa.
W. R. Beatty Machinery & Equipment Co., Pittsburgh, Pa.
Brown & Zortman Machinery Co., Pittsburgh, Pa.

Hill, Clarke & Co., Boston, Mass.
McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
Marshall & Husehart Machinery Co., 62-64 So. Canal St., Chicago, Ill.
Edgar M. Moore & Co., Pittsburgh, Pa.
Motch & Merryweather Machinery Co., Cleveland, O.

New York Machinery Depot, 120 Broadway, New York.
Prentiss Tool & Supply Co., 115 Liberty St., New York.

W. L. Sargent, Fitchburg, Mass.
Sebastian Lathe Co., Cincinnati, O.
L. F. Seyfert's Sons, Inc., 437-441 N. 3d St., Philadelphia, Pa.
H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.

Jacob Ullman, Buffalo, N. Y.
Vandyck, Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.
C. G. Wormer Machinery Co., Detroit, Mich.

Planers, Miter—
Miller Falls Co., 28 Warren St., N. Y.

Planers, Open Side—
Detrick & Harvey Machine Co., Baltimore, Md.

Mark Flather Planer Co., Nashua, N. H.
Niles-Bement-Pond Co., 111 Broadway, New York.

Planers, Plate—
Cleveland Punch & Shear Works Co., Cleveland, O.
Detrick & Harvey Machine Co., Baltimore, Md.

Hilles & Jones Co., Wilmington, Del.
Planers, Portable—
Morton Mfg. Co., Muskegon Heights, Mich.

Planers, Radius Link—
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

Planers, Rotary—
Cleveland Punch & Shear Works Co., Cleveland, O.

Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

Planers, Stone—
American Tool Works Co., Cincinnati, O.
Birmingham Iron Foundry, Derby, Ct.
Farrel Foundry & Mach. Co., Ansonia, Ct.

Planers, Valve Seat—
Niles-Bement-Pond Co., 111 Broadway, New York.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

H. B. Underwood & Co., 1025 Hamilton St., Philadelphia, Pa.

Planers, Wall—
Niles-Bement-Pond Co., 111 Broadway, New York.

Planers, Wood Working—
Badger State Machine Co., Inc., Janesville, Wis.

Crescent Machine Co., Leetonia, O.
Greaves, Klusman & Co., Cincinnati, O.
Hobbs Mfg. Co., Worcester, Mass.

Humphrey Machine Co., Keene, N. H.
Lane Mfg. Co., Montpelier, Vt.
Oliver Machinery Co., Grand Rapids, Mich.

Planers, Wood Working Hand—

Crescent Machine Co., Leontonia, O.

Planes, Ice—

(See Ice Harvesting Tools.)

Planes, Iron—

Stanley Rule & Level Co., New Britain, Ct.

Tower & Lyon Co., 95 Chambers St., New York.

Union Mfg. Co., New Britain, Ct.

Planes, Variable Bench—

Otis A. Smith, Rockfall, Ct.

Planes, Wood—

Chapin-Stephens Co., Pine Meadow, Ct.
Stanley Rule & Level Co., New Britain, Ct.

Union Mfg. Co., New Britain, Ct.

Planimeters—

American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Ashcroft Mfg. Co., 85-89 Liberty St., N.Y.

Crosby Steam Gauge & Valve Co., Boston.

Reuffel & Esser Co., 127 Fulton St., N.Y.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Planing Mill Machinery—

Badger State Machine Co., Inc., Janesville, Wis.

Hobbs Mfg. Co., Worcester, Mass.

Oliver Machinery Co., Grand Rapids, Mich.

Wickes Bros., Saginaw, Mich.

Plant Labels—

(See Labels, Plant or Tree.)

Plantation Checks—

(See Checks, Plantation.)

Planters and Drills, Corn—

Keystone Farm Machine Co., York, Pa.

F. E. Kohler & Co., Canton, O.

Planters, Cotton—

Keystone Farm Machine Co., York, Pa.

R. W. Whitehurst Co., Norfolk, Va.

Planters, Ho—

(See Hoes, Eye.)

Planters, Peanut—

R. W. Whitehurst Co., Norfolk, Va.

Planters, Potato—

Bateman Mfg. Co., Grenloch, N. J.

Plastering Trowels—

(See Trowels, Brick, Plastering, &c.)

Plate, Armor—

Bethlehem Steel Co., So. Bethlehem, Pa.

Carnegie Steel Co., Pittsburgh, Pa.

Plate, Black, for Tinning—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Empire Iron & Steel Co., Niles, O.

Follansbee Bros. Co., Pittsburgh, Pa.

Plate Casters, Hinges—

(See Casters, Hinges.)

Plate Handles, Wire—

(See Household Articles, Wire.)

Plate, Tack—

La Belle Iron Works, Steubenville, O.

Plate, Tin and Terne—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Delphos Mfg. Co., Delphos, O.

Follansbee Bros. Co., Pittsburgh, Pa.
Merchant & Evans Co., 517 Arch St., Philadelphia, Pa.
Standard Tin Plate Co., Canonsburg, Pa.

MERCHANTS.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Waite, Ranlet & Co., Boston, Mass.

Platers' Metal—

(See Metal, Platers' or Gold.)

Platers, Metal or Gold—

(See Metal.)

Platers' Supplies—

(See Polishing and Buffing Supplies.)

Plates and Hooks, Window—

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Plates and Signs, Post Office—

Eagle Lock Co., Terryville, Ct.

Plates and Stubs, Store Shutter—

(See Stubs and Plates, Store Shutter.)

Plates and Wheels, Sheave—

Mathew Lanz & Sons, Pittsburgh, Pa.

Plates, Ball Mill—

Taylor Iron & Steel Co., High Bridge, N. J.

Plates, Black, for Deep Stamping—

Empire Iron & Steel Co., Niles, O.

Follansbee Bros. Co., Pittsburgh, Pa.

Plates, Bolster—

American Steel Foundries, 42 Broadway, New York.

S. Cheney & Son, Manlius, N. Y.

Republic Iron & Steel Co., Pittsburgh, Pa.

Western Foundry & Sash Weight Co., 2d and Miller Sts., St. Louis, Mo.

Plates, Brass Step—

W. & J. Tiebout, 118 Chambers St., N. Y.

Plates, Building—

(See Iron Work, Builders.)

Plates, Car, Ball Bearing Center—

T. H. Symington Co., Baltimore, Md.

Plates, Carriage and Wagon—

(See Plates, Name.)

Plates, Cement Mill—

Bethlehem Steel Co., So. Bethlehem, Pa.

Thomas Prosser & Son, 26 Platt St., N.Y.

Plates, Centrifugal Machinery Perforated—

Erdle Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 221 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 441 Pearl St., N. Y.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Plates, Cooling—

Rancroft & Co., Philadelphia, Pa.

Plates, Deck or Man Hole—

W. & J. Tiebout, 118 Chambers St., N. Y.

Plates, Die—

Butterfield & Co., Derby Line, Vt.

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

Plates, Door—
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-96 Lafayette
St., New York.

Schwerdtle Stamp Co., Bridgeport, Ct.
Plates, Drop Letter—
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-96 Lafayette
St., New York.
Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Plates, Felloe—
Avery Stamping Co., Cleveland, O.
Bettcher Mfg. Co., Cleveland, O.
John R. Keim Mills, Inc., Buffalo, N. Y.
McKinney Mfg. Co., Allegheny, Pa.
J. H. Sessions & Son, Bristol, Ct.
Upson Nut Co., Cleveland, O.
Walter W. Woodruff & Sons Co., Mount
Carmel, Ct.

Wrought Washer Mfg. Co., Milwaukee,
Wis.
Youngstown Iron & Steel Roofing Co.,
Youngstown, O.

Plates, Filter Press Perforated—
Erdle Perforating Co., Rochester, N. Y.
Harrington & King Perforating Co., 224
N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441 Pearl St., N. Y.

Plates, Fire Box—
Otis Steel Co., Ltd., Cleveland, O.

Plates, Fish—
Pittsburgh Forge & Iron Co., Pittsburgh,
Republ. Iron & Steel Co., Pittsburgh, Pa.

Plates, Floor and Ceiling—
Belmont Iron Works, Inc., Philadelphia.
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.
Grabler Mfg. Co., Cleveland, O.
National Tube Co., Pittsburgh, Pa.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Sligo Iron & Steel Co., Pittsburgh, Pa.
Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.
Worcester Pressed Steel Co., Worcester,
Mass.

Plates for Rheostats—
Chas. Mundt & Sons, 441 Pearl St., N. Y.

Plates for Welding Iron and Steel—
Chicago Metal Reduction Co., 77 Jackson
Boulevard, Chicago, Ill.

F. R. Phillips & Sons Co., Pennsylvania
Bldg., Philadelphia, Pa.

Plates, Gusset, Steel—
Avery Stamping Co., Cleveland, O.

Plates, Hand Hole—
Indianapolis Drop Forging Co., Indian-
apolis, Ind.

Plates, Heel and Sole—
Parker Wire Goods Co., Worcester, Mass.
Louis Sacks, Newark, N. J.

Plates, Hinge—
American Ring Co., Waterbury, Ct.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-96 Lafayette
St., New York.

Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Plates, Hot, Electric—
General Electric Co., Schenectady, N. Y.

Plates, Hot, Gas—
Fanner Mfg. Co., Cleveland, O.
Griswold Mfg. Co., Erie, Pa.
S. at. Howes Co., Boston, Mass.
Schneider & Trenkamp Div., Am. Stove
Co., Cleveland, O.

Taylor & Boggis Foundry Co., Cleveland.
Plates, Iron and Steel—
American Sheet and Tin Plate Co., Pitts-
burgh, Pa.

Carnegie Steel Co., Pittsburgh, Pa.
Chrome Steel Works, Chrome, N. J.
Empire Iron & Steel Co., Niles, O.
Follansbee Bros. Co., Pittsburgh, Pa.
Forest City Steel & Iron Co., Cleveland,
Inland Steel Co., First National Bank
Bldg., Chicago, Ill.

W. N. Kratzer & Co., Pittsburgh, Pa.
Jones & Laughlin Steel Co., Pittsburgh.
La Belle Iron Works, Steubenville, O.
Lackawanna Steel Co., 2 Rector St., N. Y.
Lukens Iron & Steel Co., Coatesville, Pa.
Otis Steel Co., Ltd., Cleveland, O.
Thos. Prosser & Son, 26 Platt St., N. Y.
Republ. Iron & Steel Co., Pittsburgh, Pa.
Sligo Iron & Steel Co., Pittsburgh, Pa.
Tennessee Coal, Iron & Railroad Co., 71
Broadway, New York.

Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.
J. Wood & Bros. Co., Conshohocken, Pa.
Youngstown Sheet & Tube Co., Youngs-
town, O.

MERCHANTS.

Belmont Iron Works, Inc., Philadelphia.
Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-91 Lafayette St.,
New York.

Dilworth, Gilbert & Towne, Inc., 35-37
Wooster St., New York.

Arthur C. Harvey Co., Boston, Mass.
Hirsch Rolling Mill Co., St. Louis, Mo.
C. B. Houston & Co., Girard Trust Bldg.,
Philadelphia, Pa.

Ernest Law & Co., 15th and Market Sts.,
Philadelphia, Pa.
Henry Lewis & Co., 26 So. 15th St., Phil-
adelphia, Pa.

Edgar M. Moore & Co., Pittsburgh, Pa.
Edmund W. Mudge & Co., Pittsburgh,
Pa.

North Works Illinois Steel Co., Chicago,
Ill.
Ogden & Wallace, 577 Greenwich St.,
New York.

Pierson & Co., 29 Broadway, N. Y.
Pittsburgh Steel Construction Co., Pitts-
burgh, Pa.

Horace T. Potts & Co., 316-320 No. 3d St.,
Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwau-
kee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.
Charles G. Stevens Co., 60 So. Canal
St., Chicago, Ill.

Wheeler, Mifflin & Co., Philadelphia, Pa.
**Plates, Iron and Steel, Cor-
rugated—**

Carnegie Steel Co., Pittsburgh, Pa.
Empire Iron & Steel Co., Niles, O.

Plates, Iron and Steel,

Punched—

Abendroth & Root Mfg. Co., Newburgh, N. Y.
Erdle Perforating Co., Rochester, N. Y.
Harrington & King Perforating Co., 221 N. Union St., Chicago, Ill.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Plates, Mending—

Griffin Mfg. Co., Erie, Pa.
National Mfg. Co., Sterling, Ill.
Stanley Works, New Britain, Ct.

Plates, Mirror—

Turner & Stanton Co., Norwich, Ct.

Plates, Name—

American Railway Supply Co., 24 Park Place, New York.

August Becker Engraving Co., Boston.
Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Arthur T. Rutter & Co., 256 Broadway, New York.

Schwerdtle Stamp Co., Bridgeport, Ct.
Taylor & Boggs Foundry Co., Cleveland.

Plates, Number—

Eagle Lock Co., Terryville, Ct.

Plates, Perforated Manganese Steel—

E. B. Stimpson Co., 31 Spruce St., N. Y.
Taylor Iron & Steel Co., High Bridge, N. J.

Plates, Perforated Metal—

Erdle Perforating Co., Rochester, N. Y.
Hendrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 441-447 Pearl St., New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Plates, Perforated Sifter and Screen—

Erdle Perforating Co., Rochester, N. Y.
Harrington & King Perforating Co., 221 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441-447 Pearl St., New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Taylor Iron & Steel Co., High Bridge, N. J.

Plates, Pipe Hook, Steel—

Avery Stamping Co., Cleveland, O.

Plates, Push, Pull and Kick—

Bommer Bros., Brooklyn, N. Y.
Chicago Spring Butt Co., Chicago, Ill.

Glen Mfg. Co., Ellwood City, Pa.
Griffin Mfg. Co., Erie, Pa.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.
Taylor & Boggs Foundry Co., Cleveland.

Yale & Towne Mfg. Co., 9 Murray St., N. Y.

Plates, Railroad Joint—

Lackawanna Steel Co., 2 Rector St., N. Y.

Plates, Safe Burglar Proof—

Chrome Steel Works, Chrome, N. J.

Plates, Screw—

Charles H. Realy & Co., 15-21 Clinton St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.
Butterfield & Co., Derby Line, Vt.

S. W. Card Mfg. Co., Mansfield, Mass.

J. M. Carpenter Tap & Die Co., Pawtucket, R. I.

Champion Blower & Forge Co., Lancaster, Pa.

Hart Mfg. Co., Cleveland, O.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

A. J. Smart Mfg. Co., Greenfield, Mass.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Plates, Screw Bicycle—
Butterfield & Co., Derby Line, Vt.

Plates, Screw, Quick Opening—
Wells Bros. Co., Greenfield, Mass.

Plates, Ship—
Otis Steel Co. Ltd., Cleveland, O.

Plates, Shoe Base Ball—
Boston Pressed Metal Co., Worcester, Mass.

Plates, Sketch, Steel—
Avery Stamping Co., Cleveland, O.

Plates, Spring, Pressed Steel—
Union Springs & Mfg. Co., New Kensington, Pa.

Plates, Steel Blued—
La Belle Iron Works, Steubenville, O.

Plates, Steel Tank—
Standard Tin Plate Co., Canonsburg, Pa.

Plates, Steel Tank—
Allegheny Steel Co., Pittsburgh, Pa.

Plates, Straightening—
Thomas Prosser & Son, 26 Platt St., N. Y.

Plates, Straightening—
Bancroft & Co., Philadelphia, Pa.

Plates, Tank—
Otis Steel Co. Ltd., Cleveland, O.

Plates, Tie—
Elyria Iron & Steel Co., Elyria, O.

Plates, Tire Setting, Iron—
Pittsburgh Forge & Iron Co., Pittsburgh,

R. B. Noyes & Co., Greenfield, Mass.

Plates, Valve—
Wells Bros. Co., Greenfield, Mass.

(See Discs, Valve.)
Plates, Ventilating—
(See Iron Work, Builders')

Plates, Wagon End Gate—
Lawrence Bros., Sterling, Ill.

Plates, Wall, Steel—
W. L. Clark Co., Salem, O.

Plates, Whimtree—
Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Plates, Zinc—
Matthiesen & Hegeler Zinc Co., La Salle, Ill.

Sandoval Zinc Co., 122 N. Peoria St., Chicago, Ill.

Plating Scales—
(See Scales, Platform.)

Plating Apparatus, Electro Mechanical—
Hanson & Van Winkle Co., Newark, N. J.

Zucker & Levett & Loeb Co., 526 W. 25th St., New York.

Plating Barrels for Small Articles—
(See Barrels, Plating.)

Plating, Brass—
Hopson & Chapin Mfg. Co., New London, Ct.

National Cycle Mfg. Co., Bay City, Mich.
John A. Peckham, New Haven, Ct.
Schatz Hardware Mfg. Co., Chappaqua,
N. Y.

W. & S. Mfg. Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Plating, Copper and Bronze—

Hopson & Chapin Mfg. Co., New London,
Ct.

National Cycle Mfg. Co., Bay City, Mich.
John A. Peckham, New Haven, Ct.

Schatz Hardware Mfg. Co., Chappaqua,
N. Y.

W. & S. Mfg. Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Plating, Electro—

American Gas Machine Co., Albert Lea,
Minn.

Blake & Johnson Co., Waterbury, Ct.

Erie Stamping & Mfg. Co., Erie, Pa.

Hopson & Chapin Mfg. Co., New London,
Ct.

John B. Keim Mills, Inc., Buffalo, N. Y.

National Cycle Mfg. Co., Bay City, Mich.

John A. Peckham, New Haven, Ct.

Raymond Mfg. Co., Corry, Pa.

J. J. Ryan & Co., 68 W. Monroe St.,
Chicago, Ill.

Schatz Hardware Mfg. Co., Chappaqua,
N. Y.

M. I. Smith, Bristol, Ct.

I. S. Spencer's Sons, Guilford, Ct.

Taylor & Boggis Foundry Co., Cleveland,
O.

W. & S. Mfg. Co., Worcester, Mass.

Worcester Pressed Steel Co., Worcester,
Mass.

Plating, Nickel—

Blake & Johnson Co., Waterbury, Ct.

S. Cheney & Son, Manlius, N. Y.

Chicago Hardware Foundry Co., North
Chicago, Ill.

Clark Novelty Co., Rochester, N. Y.

Delaware Marine Supply Mfg. Co., Wil-
mington, Del.

Gray Iron Foundry Co., Reading, Pa.

Hubley Mfg. Co., Lancaster, Pa.

John B. Keim Mills, Inc., Buffalo, N. Y.

National Cycle Mfg. Co., Bay City, Mich.

John A. Peckham, New Haven, Ct.

Raymond Mfg. Co., Corry, Pa.

J. J. Ryan & Co., 68 W. Monroe St.,
Chicago, Ill.

Schatz Hardware Mfg. Co., Chappaqua,
N. Y.

I. S. Spencer's Sons, Guilford, Ct.

W. & S. Mfg. Co., Worcester, Mass.

Plating Supplies, Electro—

(See Electro Plating Supplies.)

Platinum—

Baker & Co., Inc., Newark, N. J.

J. Bishop & Co., Malvern, Pa.

Elmer & Amend, 205 3d Ave., New York.

Platinum Laboratory Utensils—

Baker & Co., Inc., Newark, N. J.

Platinum Laboratory Work—

J. Bishop & Co., Malvern, Pa.

Platinum Plates—

Ellwood Irvin Tube Works, Oak Lane
Sta., Philadelphia, Pa.

Platinum Ware—

(See Ware, Platinum.)

Pliers, Button's—

Cronk & Carrier Mfg. Co., Elmira, N. Y.

John H. Graham & Co., 113 Chambers
St., New York.

Schuchardt & Schutte, 136 Liberty St.,
N. Y.

Utica Drop Forge & Tool Co., Utica,
N. Y.

Pliers, Chain, Needle and Reamer Nose—

Alfred Field & Co., 93 Chambers St.,
New York.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Schuchardt & Schutte, 136 Liberty St.,
N. Y.

Utica Drop Forge & Tool Co., Utica,
N. Y.

Pliers, Champagne—

Schuchardt & Schutte, 136 Liberty St.,
N. Y.

Pliers, Combination—

Billings & Spencer Co., Hartford, Ct.

Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Alfred Field & Co., 93 Chambers St.,
New York.

Indianapolis Drop Forging Co., Indian-
apolis, Ind.

Kilborn & Bishop Co., New Haven, Ct.

J. M. King & Co., Waterford, N. Y.

Krauter & Co., Inc., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Richmond Forgings Corporation, Rich-
mond, Va.

Schuchardt & Schutte, 136 Liberty St.,
N. Y.

Tower & Lyon Co., 95 Chambers St.,
New York.

Utica Drop Forge & Tool Co., Utica,
N. Y.

Pliers, Curved Nose—

Utica Drop Forge & Tool Co., Utica,
N. Y.

Pliers, Cutting, End, Side and Diagonal—

Billings & Spencer Co., Hartford, Ct.

Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Alfred Field & Co., 93 Chambers St.,
New York.

John H. Graham & Co., 113 Chambers
St., New York.

Irving Mfg. & Tool Co., 157 Chambers
St., New York.

Kilborn & Bishop Co., New Haven, Ct.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Schuchardt & Schutte, 136 Liberty St.,
N. Y.

Otis A. Smith, Rockfall, Ct.

Smith & Hemenway Co., 108-110 Duane
St., New York.

Utica Drop Forge & Tool Co., Utica,
N. Y.

Pliers, Duck Bill—

Utica Drop Forge & Tool Co., Utica,
N. Y.

Pliers, Electricians—

Billings & Spencer Co., Hartford, Ct.

- Cronk & Carrier Mfg. Co., Elmira, N. Y.
John H. Graham & Co., 113 Chambers St., New York.
- Irving Mfg. & Tool Co., 157 Chambers St., New York.
- Kilborn & Bishop Co., New Haven, Ct.
- Krauter & Co., Inc., Newark, N. J.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Schuchardt & Schutte, 136 Liberty St., N. Y.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, End, Side and Diagonal—**
Krauter & Co., Inc., Newark, N. J.
- Pliers, Farmers'—**
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Fencing—**
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Cronk & Carrier Mfg. Co., Elmira, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Flat and Round Nose—**
Billings & Spencer Co., Hartford, Ct.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Columbia Grey Iron Co., Columbia, Pa.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Alfred Field & Co., 93 Chambers St., New York.
- Irving Mfg. & Tool Co., 157 Chambers St., New York.
- Kilborn & Bishop Co., New Haven, Ct.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Schuchardt & Schutte, 136 Liberty St., N. Y.
- Tower & Lyon Co., 95 Chambers St., New York.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Wrightsville Hardware Co., Wrightsville, Pa.
- Pliers, Gas Burner and Pipe—**
Billings & Spencer Co., Hartford, Ct.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Columbia Grey Iron Co., Columbia, Pa.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Alfred Field & Co., 93 Chambers St., New York.
- Indianapolis Drop Forging Co., Indianapolis, Ind.
- Irving Mfg. & Tool Co., 157 Chambers St., New York.
- Kilborn & Bishop Co., New Haven, Ct.
- Krauter & Co., Inc., Newark, N. J.
- Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Schuchardt & Schutte, 136 Liberty St., N. Y.
- Smith & Edge Mfg. Co., Bridgeport, Ct.
- Smith & Hemenway Co., 108-110 Duane St., New York.
- Tower & Lyon Co., 95 Chambers St., New York.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Wrightsville Hardware Co., Wrightsville, Pa.
- Pliers, Glass—**
Krauter & Co., Inc., Newark, N. J.
- Schuchardt & Schutte, 136 Liberty St., N. Y.
- Smith & Hemenway Co., 108-110 Duane St., New York.
- Tower & Lyon Co., 95 Chambers St., New York.
- Pliers, Insulated—**
Cronk & Carrier Mfg. Co., Elmira, N. Y.
- Pliers, Jewelers'—**
Schuchardt & Schutte, 136 Liberty St., N. Y.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Knot Tying and Splicing—**
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- Kilborn & Bishop Co., New Haven, Ct.
Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Lineman's—**
Cronk & Carrier Mfg. Co., Elmira, N. Y.
Alfred Field & Co., 93 Chambers St., New York.
- John H. Graham & Co., 113 Chambers St., New York.
- Irving Mfg. & Tool Co., 157 Chambers St., New York.
- Kilborn & Bishop Co., New Haven, Ct.
- Schuchardt & Schutte, 136 Liberty St., N. Y.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Milliners'—**
Krauter & Co., Inc., Newark, N. J.
- Pliers, Opticians'—**
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Piano Makers'—**
Krauter & Co., Inc., Newark, N. J.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Tire Plugging—**
Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Weavers'—**
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Schuchardt & Schutte, 136 Liberty St., N. Y.
- Utica Drop Forge & Tool Co., Utica, N. Y.
- Pliers, Webbing—**
Krauter & Co., Inc., Newark, N. J.
- Plow Bolts, Castings, &c.—**
(See Bolts, Castings, &c.)
- Plow Shares—**
Bancroft & Co., Philadelphia, Pa.
- Plow Slabs and Bars for Agricultural Manufacturers—**
Jones & Laughlin Steel Co., Pittsburgh, Pa.
- Plows—**
Cutaway Harrow Co., Higganum, Ct.
- Keystone Farm Machine Co., York, Pa.
- Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Long & Allatatter Co., Hamilton, O.

Lynchburg Foundry Co., Lynchburg, Va.
Syracuse Chilled Plow Co., Syracuse,
N. Y.

R. W. Whitehurst Co., Norfolk, Va.
Plows, Hand and Wheel—
Bateman Mfg. Co., Grenloch, N. J.

Plows, Ice—
(See Ice Harvesting Tools.)

Plug Gauges—
(See Gauges, Plug and Ring.)

Plugs, Bleeder—
Delaware Marine Supply Mfg. Co., Wil-
mington, Del.

Plugs, Boiler Flue—
Joseph T. Ryerson & Son, 18-22 Milwau-
kee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.

Plugs, Fusible—
Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.

Crosby Steam Gage & Valve Co., Boston.
Lunkenheimer Co., Cincinnati, O.
Walworth Mfg. Co., Boston, Mass.

Plugs, Spark—
Grant Mfg. & Machine Co., Bridgeport,
Ct.

Hartford Machine Screw Co., Hartford,
Ct.

Metal Specialties Co., Chicago, Ill.

Plumb Bobs—
(See Bobs, Plumb.)

Plumbago—
(See Graphite.)

Plumbago Electrophying—
(See Electrophying, Plumbago.)

Plumbago Shapes—
(See Shapes, Plumbago.)

Plumbers' Brass Goods—
(See Cocks, Brass.)

**Plumbers' Furnaces, Levels,
&c.—**
(See Furnaces, Levels, &c.)

**Plumbing Supplies (Boiler
Stands, Legs and Lavatory
Fittings, Brackets, Closet
Pulls, Pipe Straps, &c.)—**

Barnes Mfg. Co., Mansfield, O.
Columbia Grey Iron Co., Columbia, Pa.
Griffin Mfg. Co., Erie, Pa.
Humphreys Mfg. Co., Mansfield, O.
Lalancé & Grosjean Mfg. Co., 299 Broad-
way, New York.

Chas. Millar & Son Co., Utica, N. Y.
Smith & Egge Mfg. Co., Bridgeport, Ct.
(See also Gaskets and Rings.)

Plumbing Supplies, Rubber

**(Plungers, Basin Plugs,
Fuller Balls, &c.)—**

H. O. Canfield Co., Bridgeport, Ct.
Plumbs and Levels—
Baker, McMillen Co., Akron, O.
Chapin-Stephens Co., Pine Meadow, Ct.
Henry Duxson & Sons, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 28 Warren St., N. Y.
Stanley Rule & Level Co., New Brit-
ain, Ct.

Plumbs, Paperhangers'—
Webster & Perks Tool Co., Springfield, O.

Plunger Rubbers—
(See Plumbing Supplies.)

Plungers, Boat—
(See Valves and Plungers.)

Plungers, Pump—

Piqua Handle & Mfg. Co., Piqua, O.
Charles L. Stevens & Co., Detroit, Mich.

Pneumatic Hammers, &c.—
(See Hammers, &c.)

Pneumatic Tools—
(See Compressed Air Tools.)

Pneumatic Tube Service—
(See Tubes, Pneumatic Service.)

Pocket Knives—
(See Cutlery, Pocket.)

Pocket Wrenches—
(See Wrenches, Bicycle and Pocket.)

Pockets, Coal Handling—
C. W. Hunt Co., West New Brighton,
N. Y.

Interstate Engineering Co., Bedford, O.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Philadelphia, Pa.
Williams, White & Co., Inc., Moline, Ill.

Pockets, Pistol, Rubber—
Tower & Lyon Co., 26 Chambers St.,
New York.

Pod Bits—
(See Bits, Pod.)

Pointers, Bolt—
Asa S. Cook Co., Hartford, Ct.

National Machinery Co., Tiffin, O.
Webster & Perks Tool Co., Springfield, O.

Pointers, Pencil—
Goodell Co., Antrim, N. H.

Pointers, Picket—
(See Picket Pointers.)

Pointers, Spoke—
Millers Falls Co., 28 Warren St., N. Y.

James Swan Co., Seymour, Ct.

Pointing Machines, Bolt—
Acme Machinery Co., Cleveland, O.

Pointing Machines, Pin—
Baird Machine Co., Oakville, Ct.

E. J. Manville Machine Co., Waterbury,
Ct.

**Pointing Machines, Rod and
Tube—**

Excelsior Needle Co., Torrington, Ct.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Pointing Machines, Wire—
Baird Machine Co., Oakville, Ct.

Excelsior Needle Co., Torrington, Ct.

E. J. Manville Machine Co., Waterbury,
Ct.

Morgan Construction Co., Worcester,
Mass.

Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Wright Wire Co., Worcester, Mass.

Pointing Wire—
(See Wire Pointing.)

**Points, Carbon and Dia-
mond—**

Est. of John Dickinson, 64 Nassau St.,
New York.

Thos. L. Dickinson, 45 Vesey St., N. Y.

**Points, Diamond Graduat-
ing—**

Est. of John Dickinson, 64 Nassau St.,
New York.

Thos. L. Dickinson, 45 Vesey St., N. Y.

Points, Diamond Turning—
Est. of John Dickinson, 64 Nassau St.

Thos. L. Dickinson, 45 Vesey St., N. Y.

Points, Glassers, &c.—
Grand Crossing Tack Co., Grand Cross-
ing, Ill.

Shelton Co., Shelton, Ct.

Points, Stone Cutters'—
Hubbard & Co., Pittsburgh, Pa.

Points, Tailors'—
(See Shears, Tailors.)

Points, Trammel—
(See Trammels and Trammel Points.)
Points, Well—
(See Well Supplies and Tools.)
Poker Handles—
(See Handles, Stove Door, Poker, &c.)
Pokers, Furnace—
S. M. Howes Co., Boston, Mass.
Pokers, Stove—
Arcade Mfg. Co., Freeport, Ill.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Wire Goods Co., Worcester, Mass.
(See also Shovels, Tongs, Pokers, Fire Sets.)
Pole Adjusters, Steps, Tips—
(See Adjusters, Steps, Tips.)
Pole Steps—
(See Telegraph and Telephone Supplies.)
Poles, Clothes Line—
Nimmo Fence & Wire Works Co., Norwood, O.
Poles, Iron Flag—
National Tube Co., Pittsburg, Pa.
Poles, Pike—
Peter Gerlach Co., Cleveland, O.
Poles, Trolley—
National Tube Co., Pittsburg, Pa.
R. D. Nuttall Co., Pittsburg, Pa.
Poles, Window Pull Down—
Piqua Handle & Mfg. Co., Piqua, O.
Police Goods—
Tower & Lyon Co., 95 Chambers St., New York.
Police Supplies—
(See Police Goods.)
Polish, Metal—
Geo. W. Hoffman, Indianapolis, Ind.
Polish, Stove—
Joseph Dixon Crucible Co., Jersey City.
Polishing and Buffing Supplies—
Hanson & Van Winkle Co., Newark, N. J.
Sterling Emery Wheel Co., Tiffin, O.
Superior Corundum Wheel Co., Waltham, Mass.
Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.
Polishing and Lacquering—
Schatz Hardware Mfg. Co., Chappaqua, N. Y.
W. & S. Mfg. Co., Worcester, Mass.
Polishing Belts, Heads, Wheels—
(See Belts, Heads, Wheels.)
Polishing Leather for Dry Tumbling Barrels—
Peckham Mfg. Co., Newark, N. J.
Polishing Machines—
(See Buffing and Polishing Machines.)
Polishing Machines, Flat Surface—
Blake & Johnson Co., Waterbury, Ct.
Polishing Machines, Glass—
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
Polishing Machines, Marble and Stone—
Ingersoll-Rand Co., 11 Broadway, New York.
Polishing Machines, Portable, Wood and Metal—
Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.
Polo Balls—
(See Balls, Bowling and Polo.)

Poppers, Corn—
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Delphos Mfg. Co., Delphos, O.
Kilbourne Mfg. Co., Troy, N. Y.
Parker Wire Goods Co., Worcester, Mass.
Wickwire Bros., Cortland, N. Y.
Wire Goods Co., Worcester, Mass.
Poppers, Corn, Electric—
General Electric Co., Schenectady, N. Y.
Poppets—
Western Foundry & Sash Weight Co., 2d and Miller Sts., St. Louis, Mo.
Porch Supports—
(See Supports, Porch.)
Portable Boring Machines, Drill Furnaces, &c.—
(See Boring Machines, Drilling, Furnaces, &c.)
Portable Pneumatic Grinders—
(See Grinders, Portable, Pneumatic.)
Porticoes, Ornamental—
(See Iron Work, Builders'.)
Post Bases, Fence—
(See Caps and Bases.)
Post Hole Diggers—
(See Diggers.)
Post Office Equipment—
Yale & Towne Mfg. Co., 9 Murray St., New York.
Post Tops, Fence—
Anchor Post Iron Works, 42 Park Row, New York.
De Kalb Fence Co., De Kalb, Ill.
Post Tops, Hitching—
Anchor Post Iron Works, 42 Park Row, New York.
Postal Scales—
(See Scales, Postal.)
Posts, Bicycle Saddle—
John R. Keim Mills, Inc., Buffalo, N. Y.
Posts, Clothes—
Anchor Post Iron Works, 42 Park Row, New York.
Posts, Drilling—
Keystone Mfg. Co., Buffalo, N. Y.
Posts, Fence—
Anchor Post Iron Works, 42 Park Row, New York.
Avery Stamping Co., Cleveland, O.
De Kalb Fence Co., De Kalb, Ill.
Enterprise Foundry & Fence Co., Indianapolis, Ind.
Ludlow-Saylor Wire Co., St. Louis, Mo.
National Tube Co., Pittsburg, Pa.
Sleeth-Brook & Seaman Co., 253 Broadway, New York.
Wright Wire Co., Worcester, Mass.
Posts, Hitching—
Anchor Post Iron Works, 42 Park Row, New York.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
S. Cheney & Son, Manlius, N. Y.
Covert Mfg. Co., Troy, N. Y.
Cyclone Fence Co., Waukegan, Ill.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Enterprise Foundry & Fence Co., Indianapolis, Ind.
Glen Mfg. Co., Ellwood City, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Mast, Foss & Co., Springfield, O.
National Iron & Wire Co., Cleveland, O.

- Nimmo Fence & Wire Works Co., Norwood, O.
 Norvelt Iron Works, Sterling, Ill.
 Sleeth-Brook & Seaman Co., 253 Broadway, New York.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
 Stewart Iron Works Co., Cincinnati, O.
 Van Dorn Iron Works Co., Cleveland, O.
- Posts, Lamp—**
 Belmont Iron Works, Inc., Philadelphia.
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
 Stewart Iron Works Co., Cincinnati, O.
 H. D. Wood & Co., 409 Chestnut St., Philadelphia, Pa.
- Posts, Lathe Tool—**
 Armstrong Bros. Tool Co., 104-124 N. Francisco Ave., Chicago, Ill.
 O. K. Tool Holder Co., Shelton, Ct.
- Posts, Mooring—**
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
 R. W. Whitehurst & Co., Norfolk, Va.
- Posts, Sign—**
 Anchor Post Iron Works, 42 Park Row, New York.
- Pot Chains—**
 (See Kitchen Articles, Wire.)
- Pot Covers—**
 (See Covers, Pot.)
- Potato and Apple Parers—**
 (See Parers, Apple and Potato.)
- Potato Cutters, Hooks, Mashers—**
 (See Cutters, Hooks, Mashers.)
- Potato Diggers, Planters—**
 (See Diggers, Planters, Potato.)
- Potato Machinery—**
 Bateman Mfg. Co., Glenloch, N. J.
- Potato Mashers, Wire—**
 (See Kitchen Articles, Wire.)
- Pots, Annealing, for Wire—**
 Meehan Boiler & Construction Co., Lowellville, O.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Pots, Asphalt and Mastic—**
 (See Heaters, Asphalt and Mastic.)
- Pots, Coffee—**
 Gem Mfg. Co., Boston, Mass.
- Pots, Chocolate, Tea, Coffee, &c., Silver and Silver Plated—**
 International Silver Co., Meriden, Ct.
- Pots, Galvanizing—**
 Meehan Boiler & Construction Co., Lowellville, O.
 Petroleum Iron Works Co., Sharon, Pa.
- Pots, Glue—**
 Fanner Mfg. Co., Cleveland, O.
 Stuart & Peterson Co., Burlington, N. J.
- Pots, Melting—**
 Bryant & Co., Detroit, Mich.
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
 Stuart & Peterson Co., Burlington, N. J.
- Pots, Slag—**
 Meehan Boiler & Construction Co., Lowellville, O.
 Pennsylvania Engineering Works, New Castle, Pa.
- Pots, Solder—**
 Central Foundry Co., 37 Wall St., N. Y.
 Griswold Mfg. Co., Erie, Pa.
- Schneider & Trenkamp Co., Div., American Stove Co., Cleveland, O.
- Pots, Steel Melting—**
 W. J. Clark Co., Salem, O.
- Pots, Stove—**
 Avery Stamping Co., Cleveland, O.
- Pots, Tallow—**
 American Tube & Stamping Co., Bridgeport, Ct.
 Gem Mfg. Co., Pittsburgh, Pa.
 Johnson Mfg. Co., Urbana, O.
- Pots, Teeming—**
 McCullough-Dalzell Crucible Co., Pittsburgh, Pa.
- Pottery Machinery—**
 Wellman-Seaver-Morgan Co., Cleveland, O.
- Poultry Netting—**
 (See Netting, Wire.)
- Pounders, Steak—**
 Arcade Mfg. Co., Freeport, Ill.
 Columbia Grey Iron Co., Columbia, Pa.
 Fanner Mfg. Co., Cleveland, O.
 Griswold Mfg. Co., Erie, Pa.
 Landers, Frary & Clark, New Britain, Ct.
 Parker Wire Goods Co., Worcester, Mass.
 Peck, Stow & Wilcox Co., 2 Murray St., New York.
- Powder Keg Material—**
 Empire Iron & Steel Co., Niles, O.
 J. Wood & Bros. Co., Conshohocken, Pa.
- Powder Mill Machinery—**
 Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
 Thomas Prosser & Son, 36 Platt St., N. Y.
- Powder, Oil Stone—**
 Pike Mfg. Co., Pike, N. H.
- Powder, Putty—**
 Pike Mfg. Co., Pike, N. H.
- Power Hammers—**
 (See Hammers, Power.)
- Power Transmission, Electric—**
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
- Power Transmission Machinery—**
 Bancroft & Co., Philadelphia, Pa.
 Birmingham Iron Foundry, Derby, Ct.
 Broderick & Bascom Rope Co., St. Louis.
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
 W. E. Caldwell Co., Louisville, Ky.
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
 Dodge Mfg. Co., Mishawaka, Ind.
 Falls Rivet & Machine Co., Cuyahoga Falls, O.
 Farrel, Fdy. & Mach. Co., Ansonia, Ct.
 Fawcus Machine Co., Pittsburgh, Pa.
 Jeffrey Mfg. Co., Columbus, O.
 Lane Mfg. Co., Montpelier, Vt.
 A. Leschen & Sons Rope Co., St. Louis.
 Link-Belt Co., Philadelphia, Pa.
 Morgan Engineering Co., Alliance, O.
 Morse Chain Co., Ithaca, N. Y.
 Northern Electrical Mfg. Co., Madison, Wis.
 Poole Engineering & Machine Co., Baltimore, Md.
 Royersford Foundry & Machine Co., Royersford, Pa.
 Saginaw Mfg. Co., Saginaw, Mich.
 Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.
 Wickes Bros., Saginaw, Mich.

T. B. Wood's Sons Co., Chambersburg, Pa.

MERCHANTS.

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.
Frank Toomey, 127-131 N. 3d St., Philadelphia, Pa.

Power Transmission, Vertical Shaft—

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
Dodge Mfg. Co., Mishawaka, Ind.
Falls Rivet & Machine Co., Cuyahoga Falls, O.

T. B. Wood's Sons Co., Chambersburg, Pa.

Powers, Foot—
Goodell-Pratt Co., Greenfield, Mass.

Powers, Horse—
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.

Preservatives, Wood—
Samuel Cabot, Inc., Boston, Mass.

Press Bar Machines—
Morse Twist Drill & Machine Co., New Bedford, Mass.

Press Work—
(See Stamping, Sheet Metal Work.)

Pressed Steel Products—
(See Shapes, Pressed Steel.)

Presses, Arbor—
Fox Machine Co., Grand Rapids, Mich.
Lucas Machine Tool Co., Cleveland, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

Presses, Baling—
Watson-Stillman Co., 26 Cortlandt St., N. Y.
K. W. Whitehurst & Co., Norfolk, Va.

Presses, Broaching—
Adriance Machine Works, Brooklyn, N. Y.
Blake & Johnson Co., Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
John T. Burr & Sons, Brooklyn, N. Y.
Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Lapoint Machine Tool Co., Hudson, Mass.
Chas. Leffler & Co., Brooklyn, N. Y.
E. B. Stimpson Co., 31 Spruce St., N. Y.
V. & O. Press Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Watson-Stillman Co., 26 Cortlandt St., N. Y.

Presses, Car Seal—
Theo. Hiertz Metal Co., St. Louis, Mo.

Presses, Ceiling—
Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
Ferracute Machine Co., Bridgeton, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
George A. Ohl & Co., Newark, N. J.
V. & O. Press Co., Brooklyn, N. Y.

Presses, Clay, Pipe, &c.—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Presses, Coining—
(See Coining Machinery.)

Presses, Cornice—
Adriance Machine Works, Brooklyn, N. Y.
E. W. Bliss Co., Brooklyn, N. Y.
Ferracute Machine Co., Bridgeton, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
George A. Ohl & Co., Newark, N. J.

Presses, Cotton—
K. W. Whitehurst & Co., Norfolk, Va.

Presses, Crank Pin—
Richard Dudgeon, 24-26 Columbia St., New York.

Charles F. Elmes Engineering Co., 233-239 Fulton St., Chicago, Ill.
Watson-Stillman Co., 26 Cortlandt St., New York.

Presses, Dial—
Baird Machine Co., Oakville, Ct.

Presses, Drain, Tile—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Presses, Drop—
(See Hammers, Drop.)

Presses, Electrottype—
Watson-Stillman Co., 26 Cortlandt St., New York.

Presses, Envelope—
R. E. Kidder, Worcester, Mass.

Presses, Filter—
Chas. F. Elmes Engineering Works, 233-239 Fulton St., Chicago, Ill.
Niles-Bement-Pond Co., 111 B'way, N. Y.

Presses, Foot—
Adriance Machine Works, Brooklyn, N. Y.
Baird Machine Co., Oakville, Ct.
Blake & Johnson Co., Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.
Garvin Machine Co., Spring and Varick Sts., New York.

Gould & Eberhardt, Newark, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.
E. J. Manville Machine Co., Waterbury, Ct.
Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 111 B'way, N. Y.
George A. Ohl & Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

F. B. Shuster Co., New Haven, Ct.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Fred J. Swaine Co., St. Louis, Mo.
Taylor & Fenn Co., Hartford, Ct.
V. & O. Press Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Presses, Forcing—
Lucas Machine Tool Co., Cleveland, O.

Presses, Forging—
Adriance Machine Works, Brooklyn, N. Y.
Alliance Machine Co., Alliance, O.
Beaudry & Co., Boston, Mass.
Blake & Johnson Co., Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.
Morgan Engineering Co., Alliance, O.
Niagara Machine & Tool Works, Buffalo, N. Y.
Niles-Bement-Pond Co., 111 Broadway, New York.

V. & O. Press Co., Brooklyn, N. Y.
Watson-Stillman Co., 26 Cortlandt St., New York.

Presses, Fruit and Meat—
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Erie Specialty Co., Erie, Pa.
Fanner Mfg. Co., Cleveland, O.
Griswold Mfg. Co., Erie, Pa.
Landers, Frary & Clark, New Britain, Ct.
R. W. Whitehurst & Co., Norfolk, Va.
Wrightsville Hardware Co., Wrightsville, Pa.

Presses, Gang Tool—
Blake & Johnson Co., Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Cincinnati Punch & Shear Co., Cincinnati, O.

Ferracute Machine Co., Bridgeton, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
V. & O. Press Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Presses, Hand—
Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.
Charles F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Niagara Machine & Tool Works, Buffalo, N. Y.
E. B. Stimpson Co., 31 Spruce St., N. Y.
V. & O. Press Co., Brooklyn, N. Y.

Presses, Hand and Power—
George A. Ohl & Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Presses, Hand and Power Forcing—
King Machine Tool Co., Cincinnati, O.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Presses, Hay—
R. W. Whitehurst Co., Norfolk, Va.

Presses, Heavy Flanking—
Adriance Machine Works, Brooklyn, N. Y.
Alliance Machine Co., Alliance, O.
E. W. Bliss Co., Brooklyn, N. Y.

Chambersburg Engineering Co., Chambersburg, Pa.

Consolidated Press & Tool Co., Hastings, Mich.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
Ferracute Machine Co., Bridgeton, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
Long & Allstatter Co., Hamilton, O.

Morgan Engineering Co., Alliance, O.
Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

Fred J. Swaine Co., St. Louis, Mo.

Watson-Stillman Co., 26 Cortlandt St., New York.

Presses, Heavy Hydraulic Bending—

Chambersburg Engineering Co., Chambersburg, Pa.

Presses, Hydraulic—
Alliance Machine Co., Alliance, O.

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Birmingham Iron Foundry, Derby, Ct.

Chambersburg Engineering Co., Chambersburg, Pa.

Richard Dudgeon, 24-26 Columbia St., New York.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Farrel Foundry & Mach. Co., Ansonia, Ct.

Mackintosh, Hemphill & Co., Pittsburgh.

John H. McGowan Co., Cincinnati, O.

Morgan Construction Co., Worcester, Mass.

Morgan Engineering Co., Alliance, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Watson-Stillman Co., 26 Cortlandt St., New York.

Williams, White & Co., Moline, Ill.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Presses, Hydraulic Belting—
Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Morgan and Fulton Sts., Chicago, Ill.

Farrel Foundry & Machine Co., Ansonia, Ct.

Watson-Stillman Co., 26 Cortlandt St., New York.

Presses, Hydraulic Bending—
Chambersburg Engineering Co., Chambersburg, Pa.

Presses, Hydraulic Forcing—
Chambersburg Engineering Co., Chambersburg, Pa.

Presses, Hydraulic Oil—
Charles F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Watson-Stillman Co., 26 Cortlandt St., New York.

Presses, Hydraulic Portable—
Charles F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Vulcan Iron Works, 28 No. Irving Ave., Chicago, Ill.

Watson-Stillman Co., 26 Cortlandt St., New York.

Presses, Hydraulic Wheel—
Chambersburg Engineering Co., Chambersburg, Pa.

Richard Dudgeon, 24 Columbia St., N. Y.

Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Niles-Bement-Pond Co., 111 Broadway, New York.

Watson-Stillman Co., 26 Cortlandt St., New York.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Presses, Hydro-Pneumatic—
Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Presses, Lard and Tallow—
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

Bernard Gloekler Co., Pittsburgh, Pa.

Griswold Mfg. Co., Erie, Pa.

Landers, Frary & Clark, New Britain, Ct.

Silver Mfg. Co., Salem, O.

Wrightsville Hardware Co., Wrightsville, Pa.

Presses, Lead—
Charles F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

John H. McGowan Co., Cincinnati, O.

Thomas Prosser & Son, 26 Platt St., N.Y.
Watson-Stillman Co., 26 Cortlandt St.,
New York.

Presses, Lead Seal—
Chas. Morrill, 273 Broadway, New York.
Utica Drop Forge & Tool Co., Utica,
N. Y.

**Presses, Leather Emboss-
ing—**
George A. Ohl & Co., Newark, N. J.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Presses, Meat, Boiled—
Bernard Gloekler Co., Pittsburgh, Pa.

Presses, Nut, Hot and Cold—
National Machinery Co., Tiffin, O.

**Presses, Paper, Carton
Cover—**

Adriance Machine Works, Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Presses, Perforating Metal—
E. B. Stimpson Co., 31 Spruce St., N. Y.

**Presses, Punching and
Trimming—**

Adriance Machine Works, Brooklyn, N. Y.
Baird Machine Co., Oakville, Ct.

Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.
Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.
Cincinnati Punch & Shear Co., Cincin-
nati, O.

James Clark, Jr., Electric Co., Louisville,
Ky.

Ferracute Machine Co., Bridgeton, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.
Chas. Leffler & Co., Brooklyn, N. Y.

Long & Allstatter Co., Hamilton, O.
E. J. Manville Machine Co., Waterbury,
Ct.

Merrill Bros., Brooklyn, N. Y.
National Machinery Co., Tiffin, O.

New Doty Mfg. Co., Janesville, Wis.
Niagara Machine & Tool Works, Buffalo,
N. Y.

Niles-Bement-Pond Co., 111 Broadway,
New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Fred J. Swaine Co., St. Louis, Mo.

V. & O. Press Co., Brooklyn, N. Y.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Watson-Stillman Co., 26 Cortlandt St.,
New York.

Wiley & Russell Mfg. Co., Greenfield,
Mass.

Presses, Roofing and Tile—
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

**Presses, Rubber Vulcan-
izing—**

Birmingham Iron Foundry, Derby, Ct.
Chambersburg Engineering Co., Chambers-
burg, Pa.

Chas. F. Elmes Engineering Works, 253-
259 Fulton St., Chicago, Ill.

Farrel Foundry & Mach. Co., Ansonia, Ct.

Presses, Screw—
Adriance Machine Works, Brooklyn, N. Y.

W. F. & John Barnes Co., Rockford, Ill.
Birmingham Iron Foundry, Derby, Ct.

E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., Hastings,
Mich.

Farrel Foundry & Mach. Co., Ansonia, Ct.
Ferracute Machine Co., Bridgeton, N. J.

Gould & Eberhardt, Newark, N. J.
Chas. Leffler & Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo,
N. Y.

Fred J. Swaine Co., St. Louis, Mo.
V. & O. Press Co., Brooklyn, N. Y.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Presses, Seal—
Hogson & Pettis Mfg. Co., New Haven,
Ct.

Chas. Morrill, 273 Broadway, New York.
Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.
Smith & Hemenway Co., 108-110 Duane
St., New York.

**Presses, Sheet Metal Work-
ing—**

Adriance Machine Works, Brooklyn, N. Y.
Automatic Machine Co., Bridgeport, Ct.

Baird Machine Co., Oakville, Ct.
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

Blake & Johnson Co., Waterbury, Ct.
Wm. F. Burditt, Jr., 136 Liberty St., N. Y.

Cleveland Stamping & Tool Co., Cleve-
land, O.

Consolidated Press & Tool Co., Hastings,
Mich.

Chas. F. Elmes Engineering Works, 253-
259 Fulton St., Chicago, Ill.

Ferracute Machine Co., Bridgeton, N. J.
Garvin Machine Co., Spring and Varick
Sts., New York.

Gould & Eberhardt, Newark, N. J.
W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.
Chas. Leffler & Co., Brooklyn, N. Y.

Long & Allstatter Co., Hamilton, O.
E. J. Manville Machine Co., Waterbury,
Ct.

Morgan Engineering Co., Alliance, O.
Niagara Machine & Tool Works, Buffalo,
N. Y.

Niles-Bement-Pond Co., 111 Broadway,
New York.

George A. Ohl & Co., Newark, N. J.
Richard Mfg. Co., Bloomsburg, Pa.

F. B. Shuster Co., New Haven, Ct.
South Bend Machine Tool Co., South
Bend, Ind.

Fred J. Swaine Co., St. Louis, Mo.
V. & O. Press Co., Brooklyn, N. Y.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Watson-Stillman Co., 26 Cortlandt St.,
New York.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
W. R. Beatty Machinery & Equipment
Co., Pittsburgh, Pa.

Hill, Clarke & Co., Boston, Mass.
W. C. Johnson & Sons Machinery Co.,
St. Louis, Mo.

J. J. McCabe, 14 Dey St., New York.
Marshall & Huachart Machinery Co.,
62-64 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co.,
Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty
St., New York.

Joseph T. Ryerson & Son, 12-24 Milwaukee
Ave., Chicago, Ill.

- H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
 Jacob Ullman, Buffalo, N. Y.
 Vandyck, Churchill Co., 8 Dey St., N. Y.
 A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
Presses, Spring Foot—
 Taylor & Feun Co., Hartford, Ct.
Presses, Steam Sewer Pipe—
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Presses, Steel Plate Engraving, and Printing—
 Gould & Eberhardt, Newark, N. J.
Presses, Sub—
 Riedon Tool Works, Inc., Waterbury, Ct.
 Waltham Machine Works, Waltham, Mass.
Presses, Tincture—
 Enterprise Mfg. Co. of Pa., Philadelphia, Pa.
Presses, Tire Welding—
 Williams, White & Co., Moline, Ill.
Presses, Tobacco—
 Cutaway Harrow Co., Higganum, Ct.
 I. S. Spencer's Sons, Guilford, Ct.
Presses, Vegetable—
 Fanner Mfg. Co., Cleveland, O.
 Griswold Mfg. Co., Erie, Pa.
 Wrightsville Hardware Co., Wrightsville, Pa.
Presses, Veneer—
 Fox Machine Co., Grand Rapids, Mich.
Presses, Wine—
 Keystone Farm Machine Co., York, Pa.
 R. W. Whitehurst Co., Norfolk, Va.
Presses, Wiring—
 Adriance Machine Works, Brooklyn, N. Y.
 E. W. Bliss Co., Brooklyn, N. Y.
 Ferracute Machine Co., Bridgeton, N. J.
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 Fred J. Swaine Co., St. Louis, Mo.
 V. & O. Press Co., Brooklyn, N. Y.
Prick Punches—
 (See Punches, Drive.)
Primer Making Machines—
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
Primers—
 Union Metallic Cartridge Co., Bridgeport, Ct.
Printers' and Publishers' Catalogue—
 A. Muford, Hartford, Ct.
Printers' Rule Brass—
 (See Brass Rule, Printers.)
Printing Apparatus—
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Printing Machines, Blue—
 (See Blueprint Machines.)
Printing Machines, Electric Blue—
 Buckeye Engine Co., Salem, O.
Producers, Gas—
 American Furnace & Machine Co., Pittsburgh, Pa.
 Du Bois Iron Works, Du Bois, Pa.
 Duff Patents Co., Pittsburgh, Pa.
 Foss Gas Engine Co., Springfield, O.
 Porter-Miller Engineering Co., Pittsburgh, Pa.
 Alex. Laughlin & Co., Pittsburgh, Pa.
 Morgan Construction Co., Worcester, Mass.
 R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.
 Ritter-Coulter Mfg. Co., Pittsburgh, Pa.
 S. R. Smith Co., Pittsburgh, Pa.
 Wm. Swindell & Bro., Pittsburgh, Pa.
- Velte Foundry & Machine Co., Pittsburgh, Pa.
 Vollkommer & Hagan, Pittsburgh, Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Profiling Machines—
 Becker-Brainard Milling Machine Co., Hyde Park, Mass.
 Garvin Machine Co., Spring & Varick Sts., New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Pratt & Whitney Co., Hartford, Ct.
Programme Clocks—
 (See Clocks, Programme.)
Projectiles—
 Bethlehem Steel Co., So. Bethlehem, Pa.
 National Tube Co., Pittsburgh, Pa.
Prop Block Washers—
 (See Washers, Prop Block.)
Propellers, Bronze—
 Thomas Laughlin Co., Portland, Me.
Protectors, Garbage Can—
 Wright Wire Co., Worcester, Mass.
Protectors, Package—
 Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
Protectors, Set Screw—
 H. O. Canfield Co., Bridgeport, Ct.
Protectors, Strap—
 Covert Mfg. Co., Troy, N. Y.
Protractors—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 L. S. Starrett Co., Athol, Mass.
Protractors and Triangles—
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 Tower & Lyon Co., 95 Chambers St., New York.
Pruners—
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Wiensch & Hilger, Ltd., 9-15 Murray St., New York.
Pruning Saws, Shears—
 (See Saws, Shears.)
Publishers, Book—
 American School of Correspondence, Chicago, Ill.
 David Williams Co., 14-16 Park Place, New York.
Publishers, Catalogue—
 (See Printers and Publishers, Catalogue.)
Pug Mills—
 Thomas Carlin's Sons, Allegheny, Pa.
 J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Pull Plates—
 (See Plates, Pull, Push and Kick.)
Pullers, Cork—
 Andrews Wire & Iron Works, Rockford, Ill.
 Arcade Mfg. Co., Freeport, Ill.
 Erie Specialty Co., Erie, Pa.
 John H. Graham & Co., 113 Chambers St., New York.
 Chas. Parker Co., Meriden, Ct.
 Smith & Hemenway Co., 108-110 Duane St., New York.
Pullers, Nail—
 Belden Machine Co., New Haven, Ct.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Kilborn & Bishop Co., New Haven, Ct.
 Landers, Frary & Clark, New Britain, Ct.
 Millers Falls Co., 28 Warren St., N. Y.
 Charles Morrill, 27 Broadway, New York.
 Scranton & Co., New Haven, Ct.
 Smith & Hemenway Co., 108-110 Duane St., New York.

Tower & Lyon Co., 95 Chambers St., New York.

Pullers, Railroad Spike—
 Hubbard & Co., Pittsburgh, Pa.

Charles Morrill, 27 Broadway, N. Y.

Pullers, Stake and Pole—
 Chicago Steel Foundry Co., The Rookery, Chicago, Ill.

Pullers, Staple—
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Kilborn & Bishop Co., New Haven, Ct.
 Utica Drop Forge & Tool Co., Utica, N. Y.

Pullers, Tack—
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Fletcher, Terry & Co., Forestville, Ct.
 Kilborn & Bishop Co., New Haven, Ct.
 Landers, Frary & Clark, New Britain, Ct.
 Scranton & Co., New Haven, Ct.
 Smith & Hemenway Co., 108-110 Duane St., New York.

Pulley Blocks—
 (See Blocks, Pulley.)

Pulley Bushings, Turning Lathes, &c.—
 (See Bushings, Lathes, &c.)

Pulley Hooks, Floor—
 (See Hooks, Floor Pulley.)

Pulley Machinery, Iron—
 Cincinnati Pulley Machinery Co., Cincinnati, O.

Pulleys, Ceiling—
 Reading Hardware Co., Reading, Pa.

Pulleys, Clothes Line—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
 Walker Foundry Co., Erie, Pa.
 Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Dumb Waiter—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

J. G. Speidel, Reading, Pa.

Pulleys, Electric Light—
 Reading Hardware Co., Reading, Pa.

Pulleys, Friction Clutch—
 American Well Works, Aurora, Ill.

Adriance Machine Works, Brooklyn, N. Y.
 E. W. Bliss Co., Brooklyn, N. Y.
 Brown & Sharpe Mfg. Co., Providence, R. I.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.
 Charter Gas Engine Co., Sterling, Ill.

Cowanessque Valley Iron Works, Cowanesque, Pa.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.
 Eastern Machinery Co., New Haven, Ct.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Garvin Machine Co., Spring & Varick Sts., New York.

Heas-Bryder Co., Massillon, O.

New Haven Mfg. Co., New Haven, Ct.

Poole Engineering & Machine Co., Baltimore, Md.

Pratt & Whitney Co., Hartford, Ct.

T. B. Wood's Sons Co., Chambersburg, Pa.

Pulleys, Hay Fork and Sling—

Boston & Lockport Block Co., Boston.

S. Cheney & Son, Manlius, N. Y.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Lawrence Bros., Sterling, Ill.

F. E. Myers & Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Susquehanna Casting Co., Wrightsville, Pa.

Whitman & Barnes Mfg. Co., Chicago.

Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Hot House—
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Pulleys, Locking, Automatic—

Evan L. Reed Mfg. Co., Sterling, Ill.

Pulleys, Loose—
 Chapman Ball Bearing Co., Boston, Mass.

Pulleys, Pressed Steel Shafting—

American Pulley Co., 29th and Bristol Sts., Philadelphia, Pa.

Philips Pressed Steel Pulley Works, 4th St. and Glenwood Ave., Philadelphia.

Pulleys, Sash—
 American Pulley Co., 29th and Bristol Sts., Philadelphia, Pa.

Grand Rapids Hardware Co., Grand Rapids, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Smith & Egge Mfg. Co., Bridgeport, Ct.

Susquehanna Casting Co., Wrightsville, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Screw—
 Fanner Mfg. Co., Cleveland, O.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Pulleys, Self Adjustable Shade—
 I. E. Palmer, Middletown, Ct.

Pulleys, Shade—
 Turner & Stanton Co., Norwich, Ct.

Pulleys, Shaft—
 American Tool & Machine Co., Boston.

Boston Gear Works, Norfolk Downs, Mass.

H. W. Caldwell & Sons Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

- H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
 Jacob Ullman, Buffalo, N. Y.
 Vandeyck, Churchill Co., 8 Dey St., N. Y.
 A. B. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
- Presses, Spring Foot—**
 Taylor & Fenn Co., Hartford, Ct.
- Presses, Steam Sewer Pipe—**
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Presses, Steel Plate Engraving, and Printing—**
 Gould & Eberhardt, Newark, N. J.
- Presses, Sub—**
 Riedon Tool Works, Inc., Waterbury, Ct.
 Waltham Machine Works, Waltham, Mass.
- Presses, Tincture—**
 Enterprise Mfg. Co. of Pa., Philadelphia, Pa.
- Presses, Tire Welding—**
 Williams, White & Co., Moline, Ill.
- Presses, Tobacco—**
 Cutaway Harrow Co., Higganum, Ct.
 I. S. Spencer's Sons, Guilford, Ct.
- Presses, Vegetable—**
 Fanner Mfg. Co., Cleveland, O.
 Griswold Mfg. Co., Erie, Pa.
 Wrightsville Hardware Co., Wrightsville, Pa.
- Presses, Veneer—**
 Fox Machine Co., Grand Rapids, Mich.
- Presses, Wine—**
 Keystone Farm Machine Co., York, Pa.
 R. W. Whitehurst Co., Norfolk, Va.
- Presses, Wring—**
 Adriance Machine Works, Brooklyn, N. Y.
 E. W. Bliss Co., Brooklyn, N. Y.
 Ferracuta Machine Co., Bridgeton, N. J.
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 Fred J. Swaine Co., St. Louis, Mo.
 V. & O. Press Co., Brooklyn, N. Y.
- Prick Punches—**
 (See Punches, Drive.)
- Primer Making Machines—**
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Primers—**
 Union Metallic Cartridge Co., Bridgeport, Ct.
- Printers' and Publishers' Catalogue—**
 A. Mugford, Hartford, Ct.
- Printers' Rule, Brass—**
 (See Brass Rule, Printers.)
- Printing Apparatus—**
 Keuffel & Esser Co., 127 Fulton St., N. Y.
- Printing Machines, Blue—**
 (See Blueprint Machines.)
- Printing Machines, Electric Blue—**
 Buckeye Engine Co., Salem, O.
- Producers, Gas—**
 American Furnace & Machine Co., Pittsburgh, Pa.
- Du Bois Iron Works, Du Bois, Pa.
 Duff Patents Co., Pittsburgh, Pa.
 Foos Gas Engine Co., Springfield, O.
 Porter-Miller Engineering Co., Pittsburgh, Pa.
 Alex. Laughlin & Co., Pittsburgh, Pa.
 Morgan Construction Co., Worcester, Mass.
 E. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.
- Ritter-Conley Mfg. Co., Pittsburgh, Pa.**
S. R. Smythe Co., Pittsburgh, Pa.
Wm. Swindell & Bro., Pittsburgh, Pa.
- Velte Foundry & Machine Co., Pittsburgh, Pa.
 Vollkommer & Hagan, Pittsburgh, Pa.
 Wellman-Seaver-Morgan Co., Cleveland, O.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- Profiling Machines—**
 Becker-Brainard Milling Machine Co., Hyde Park, Mass.
 Garvin Machine Co., Spring & Varick Sts., New York.
- Niles-Rement-Pond Co., 111 Broadway, New York.
- Pratt & Whitney Co., Hartford, Ct.
- Programme Clocks—**
 (See Clocks, Programme.)
- Projectiles—**
 Bethlehem Steel Co., So. Bethlehem, Pa.
 National Tube Co., Pittsburgh, Pa.
- Prop Block Washers—**
 (See Washers, Prop Block.)
- Propellers, Bronze—**
 Thomas Laughlin Co., Portland, Me.
- Protectors, Garbage Can—**
 Wright Wire Co., Worcester, Mass.
- Protectors, Package—**
 Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
- Protectors, Set Screw—**
 H. O. Canfield Co., Bridgeport, Ct.
- Protectors, Strap—**
 Covert Mfg. Co., Troy, N. Y.
- Protractors—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 L. S. Starrett Co., Athol, Mass.
- Protractors and Triangles—**
 Keuffel & Esser Co., 127 Fulton St., N. Y.
 Tower & Lyon Co., 95 Chambers St., New York.
- Pruners—**
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
- Pruning Saws, Shears—**
 (See Saws, Shears.)
- Publishers, Book—**
 American School of Correspondence, Chicago, Ill.
 David Williams Co., 14-16 Park Place, New York.
- Publishers, Catalogue—**
 (See Printers and Publishers, Catalogue.)
- Pug Mills—**
 Thomas Carlin's Sons, Allegheny, Pa.
 J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.
- Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Pull Plates—**
 (See Plates, Pull, Push and Kick.)
- Pullers, Cork—**
 Andrews Wire & Iron Works, Rockford, Ill.
- Arcade Mfg. Co., Freeport, Ill.
 Erie Specialty Co., Erie, Pa.
 John H. Graham & Co., 113 Chambers St., New York.
- Chas. Parker Co., Meriden, Ct.
 Smith & Hemenway Co., 108-110 Duane St., New York.
- Pullers, Nail—**
 Belden Machine Co., New Haven, Ct.
 Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
Landers, Frary & Clark, New Britain, Ct.
Millers Falls Co., 28 Warren St., N. Y.
Charles Morrill, 27 Broadway, New York.
Scranton & Co., New Haven, Ct.
Smith & Hemenway Co., 108-110 Duane St., New York.
Tower & Lyon Co., 95 Chambers St., New York.

Pullers, Railroad Spike—

Hubbard & Co., Pittsburgh, Pa.

Charles Morrill, 27 Broadway, N. Y.

Pullers, Stake and Pole—

Chicago Steel Foundry Co., The Rookery, Chicago, Ill.

Pullers, Staple—

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

Utica Drop Forge & Tool Co., Utica, N. Y.

Pullers, Tack—

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Fletcher, Terry & Co., Forestville, Ct.

Kilborn & Bishop Co., New Haven, Ct.

Landers, Frary & Clark, New Britain, Ct.

Scranton & Co., New Haven, Ct.

Smith & Hemenway Co., 108-110 Duane St., New York.

Pulley Blocks—

(See Blocks, Pulley.)

Pulley Bushings, Turning

Lathes, &c.—(See Bushings, Lathes, &c.)

Pulley Hooks, Floor—

(See Hooks, Floor Pulley.)

Pulley Machinery, Iron—

Cincinnati Pulley Machinery Co., Cincinnati, O.

Pulleys, Ceiling—

Reading Hardware Co., Reading, Pa.

Pulleys, Clothes Line—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Walker Foundry Co., Erie, Pa.

Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Dumb Waiter—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

J. G. Speidel, Reading, Pa.

Pulleys, Electric Light—

Reading Hardware Co., Reading, Pa.

Pulleys, Friction Clutch—

American Well Works, Aurora, Ill.

Adriance Machine Works, Brooklyn, N. Y.

E. W. Bliss Co., Brooklyn, N. Y.

Brown & Sharpe Mfg. Co., Providence, R. I.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Charter Gas Engine Co., Sterling, Ill.

Cowanessque Valley Iron Works, Cowanessque, Pa.

Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Eastern Machinery Co., New Haven, Ct.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Garvin Machine Co., Spring & Varick Sts., New York.

Hess-Snyder Co., Massillon, O.

New Haven Mfg. Co., New Haven, Ct.

Poole Engineering & Machine Co., Baltimore, Md.

Pratt & Whitney Co., Hartford, Ct.

T. B. Wood's Sons Co., Chambersburg, Pa.

Pulleys, Hay Fork and Sling—

Boston & Lockport Block Co., Boston.

S. Cheney & Son, Manlius, N. Y.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Lawrence Bros., Sterling, Ill.

F. E. Myers & Bro., Ashland, O.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Susquehanna Casting Co., Wrightsville, Pa.

Whitman & Barnes Mfg. Co., Chicago.

Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Hot House—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Pulleys, Locking, Automatic—

Evan L. Reed Mfg. Co., Sterling, Ill.

Pulleys, Loose—

Chapman Ball Bearing Co., Boston, Mass.

Pulleys, Pressed Steel Shafting—

American Pulley Co., 29th and Bristol Sts., Philadelphia, Pa.

Philips Pressed Steel Pulley Works, 4th St. and Glenwood Ave., Philadelphia.

Pulleys, Sash—

American Pulley Co., 29th and Bristol Sts., Philadelphia, Pa.

Grand Rapids Hardware Co., Grand Rapids, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Smith & Esge Mfg. Co., Bridgeport, Ct.

Susquehanna Casting Co., Wrightsville, Pa.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

Pulleys, Screw—

Fanner Mfg. Co., Cleveland, O.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Pulleys, Self Adjustable

Shade—

I. E. Palmer, Middletown, Ct.

Pulleys, Shade—

Turner & Stanton Co., Norwich, Ct.

Pulleys, Shaft—

American Tool & Machine Co., Boston.

Boston Gear Works, Norfolk Downs, Mass.

H. W. Caldwell & Sons Co., Western Ave. and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Charter Gas Engine Co., Sterling, Ill.
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
 Dodge Mfg. Co., Mishawaka, Ind.
 Eastern Machinery Co., New Haven, Ct.
 I. & E. Greenwald Co., Cincinnati, O.
 Hess-Snyder Co., Massillon, O.
 Humphrey Machine Co., Keene, N. H.
 Jones & Laughlin Steel Co., Pittsburgh.
 Pennsylvania Steel Pulley Co., Pittsburgh, Pa.
 Phillips Pressed Steel Pulley Works, 4th St. and Glenwood Ave., Philadelphia.
 Poole Engineering & Machine Co., Baltimore, Md.
 Royersford Foundry & Machine Co., Royersford, Pa.

Saginaw Mfg. Co., Saginaw, Mich.
 Walsh's Sons & Co., Newark, N. J.
 Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.
 Wickes Bros., Saginaw, Mich.
 T. B. Wood's Sons Co., Chambersburg, Pa.

Pulleys, Side—

Thomas Laughlin Co., Portland, Me.
 Ney Mfg. Co., Canton, O.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 W. & J. Tiebout, 118 Chambers St., N. Y.
 Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Pulleys, Split—

W. E. Caldwell Co., Inc., Louisville, Ky.
 Geo. V. Cresson Co., 18th St. & Allegheny Ave., Philadelphia, Pa.
 Dodge Mfg. Co., Mishawaka, Ind.
 Falls Rivet & Machine Co., Cuyahoga Falls, O.
 Hess-Snyder Co., Massillon, O.
 Pennsylvania Steel Pulley Co., Pittsburgh, Pa.
 Poole Engineering & Machine Co., Baltimore, Md.
 T. B. Wood's Sons Co., Chambersburg, Pa.

Pulleys, Split Steel—

American Pulley Co., 29th and Bristol Sts., Philadelphia, Pa.

Pennsylvania Steel Pulley Co., Pittsburgh.

Pulleys, Steel Face—

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Pulleys, Tackle or Awning—

Boston & Lockport Block Co., Boston.
 Fanner Mfg. Co., Cleveland, O.
 Thomas Laughlin Co., Portland, Me.
 A. Leschen & Sons Rope Co., St. Louis.
 Ney Mfg. Co., Canton, O.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Reading Hardware Co., Reading, Pa.
 Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Pulleys, Upright—

Thomas Laughlin Co., Portland, Me.
 Peck, Stow & Wilcox Co., 27 Murray St.
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
 W. & J. Tiebout, 118 Chambers St., N. Y.
 Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Pulleys, Wagon Brake—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Pulleys, Wire Stretching—

Otis A. Smith, Rockfall, Ct.

Pulleys, Wood Rim—

Dodge Mfg. Co., Mishawaka, Ind.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Lane Mfg. Co., Montpelier, Vt.

Pulleys, Wood Split—

American Well Works, Aurora, Ill.

Dodge Mfg. Co., Mishawaka, Ind.

Falls Rivet & Machine Co., Cuyahoga Falls, O.

Saginaw Mfg. Co., Saginaw, Mich.

Pulleys, Wrought Steel Split—

American Pulley Co., 29th and Bristol Sts., Philadelphia, Pa.

Pulls, Bell—

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Pulls, Closet—

H. A. Matthews Mfg. Co., Seymour, Ct.

Pulls, Door—

Arcade Mfg. Co., Freeport, Ill.

Chicago Spring Butt Co., Chicago, Ill.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

F. E. Kohler & Co., Canton, O.

National Mfg. Co., Sterling, Ill.

Ney Mfg. Co., Canton, O.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wire Goods Co., Worcester, Mass.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Pulls, Drawer—

American Ring Co., Waterbury, Ct.

Arcade Mfg. Co., Freeport, Ill.

Jos. Bardsley, 147-151 Baxter St., N. Y.

W. J. Clark Co., Salem, O.

Columbia Grey Iron Co., Columbia, Pa.

Earle Lock Co., Terryville, Ct.

Griffin Mfg. Co., Erie, Pa.

Otto Konislaw Mfg. Co., Cleveland, O.

Lawrence Bros., Sterling, Ill.

McKinney Mfg. Co., Allegheny, Pa.

National Mfg. Co., Sterling, Ill.

Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Piqua Handle & Mfg. Co., Piqua, O.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shelby Spring Hinge Co., Shelby, O.

Stanley Works, New Britain, Ct.

Taylor & Boggs Foundry Co., Cleveland.

Wire Goods Co., Worcester, Mass.

Wrightsville Hardware Co., Wrightsville, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Pulls, Screen or Box—
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.
Shelby Spring Hinge Co., Shelby, O.
Turner & Stanton Co., Norwich, Ct.

Pulls, Shade—
Turner & Stanton Co., Norwich, Ct.

Pulls, Window—
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-13 Lafayette
St., New York.

Shelby Spring Hinge Co., Shelby, O.
Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Pulp Mill Machinery—
Jeffrey Mfg. Co., Columbus, O.

Pulverizers, Ore and Clay—
Jeffrey Mfg. Co., Columbus, O.
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Pump Chain, Cylinders.
Rods—
(See Chain, Cylinders, Rods.)

Pump Fitters' Supplies—
Humphries Mfg. Co., Mansfield, O.
Walworth Mfg. Co., Boston, Mass.

Pump Fixtures, Chain—
Cleveland Galvanizing Works, Cleveland.
W. & B. Douglas, Middletown, Ct.
Novelty Iron Works, Sterling, Ill.

Pump Leathers—
(See Leathers, Pump.)

Pump Pressure Regulators—
(See Regulators, Pump Pressure.)

Pump Rod Couplings—
(See Couplings, Pump rod.)

Pump Supplies, Beer—
H. O. Canfield Co., Bridgeport, Ct.

Pumping Oil Wells, Machinery for—

A. D. Cook, Lawrenceburg, Ind.
Du Bois Iron Works, Du Bois, Pa.
Riverside Engine Co., Oil City, Pa.
Tate, Jones & Co., Inc., Pittsburgh, Pa.

Pumps, Air—
Goulds Mfg. Co., Seneca Falls, N. Y.

Pumps, Air Lift—
American Well Works, Aurora, Ill.
Clayton Air Compressor Works, 114-118
Liberty St., New York.

Du Bois Iron Works, Du Bois, Pa.
Ingersoll-Rand Co., 11 Broadway, N. Y.
Riverside Engine Co., Oil City, Pa.

Pumps, Ale or Beer—
Dean Bros. Steam Pump Works, Indian-
apolis, Ind.

Goulds Mfg. Co., Seneca Falls, N. Y.

**Pumps, Artesian Well, and
Cylinders—**

American Well Works, Aurora, Ill.
Barnes Mfg. Co., Mansfield, O.
A. D. Cook, Lawrenceburg, Ind.
Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.
John H. McGowan Co., Cincinnati, O.
F. E. Myers & Bro., Ashland, O.
Union Steam Pump Co., Battle Creek,
Mich.

Pumps, Automatic—
W. & B. Douglas, Middletown, Ct.

Pumps, Ballast—
(See Pumps, Boiler Feed.)

**Pumps, Bicycle and Auto-
mobile—**

Bridgeport Brass Co., 253 B'way, N. Y.
Goulds Mfg. Co., Seneca Falls, N. Y.
Scovill Mfg. Co., Waterbury, Ct.
Union Steam Pump Co., Battle Creek,
Mich.

Pumps, Boat, Cellar, &c.—
Thomas Laughlin Co., Portland, Me.

Pumps, Boiler Feed—
Allentown Rolling Mills, Allentown, Pa.
American Well Works, Aurora, Ill.
Barnes Mfg. Co., Mansfield, O.
Buffalo Forge Co., Buffalo, N. Y.
Dean Bros. Steam Pump Works, Indian-
apolis, Ind.

De Laval Steam Turbine Co., Trenton,
N. J.

Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.
Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.

A. D. Granger Co., West St. Bldg., N. Y.
Humphries Mfg. Co., Mansfield, O.
Benj. F. Kelley & Son, 91 Liberty St., N. Y.
John H. McGowan Co., Cincinnati, O.
Mason Regulator Co., Boston, Mass.
F. E. Myers & Bro., Ashland, O.
Frank L. Patterson & Co., 28 Cortlandt
St., New York.

Pittsburgh Valve, Foundry & Construc-
tion Co., Pittsburgh, Pa.
Union Steam Pump Co., Battle Creek,
Mich.

Pumps, Boiler Test—
American Steam Gauge & Valve Mfg.
Co., Boston, Mass.

Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
Barnes Mfg. Co., Mansfield, O.
Buffalo Forge Co., Buffalo, N. Y.
Crosby Steam Gauge & Valve Co., Boston.
W. & B. Douglas, Middletown, Ct.
Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
A. L. Henderer's Sons, Wilmington, Del.

Pumps, Brass—
Barnes Mfg. Co., Mansfield, O.
Bridgeport Brass Co., 253 B'way, N. Y.
W. & B. Douglas, Middletown, Ct.
Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.
F. E. Myers & Bro., Ashland, O.

Pumps, Brevers—
American Well Works, Aurora, Ill.
Dean Bros. Steam Pump Works, Indian-
apolis, Ind.

Goulds Mfg. Co., Seneca Falls, N. Y.
John H. McGowan Co., Cincinnati, O.
Union Steam Pump Co., Battle Creek,
Mich.

Pumps, Carriage—
Bridgeport Brass Co., 253 B'way, N. Y.

Pumps, Centrifugal—
Alberger Condenser Co., 85 Liberty St.,
New York.

American Well Works, Aurora, Ill.
Barnes Mfg. Co., Mansfield, O.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Buffalo Forge Co., Buffalo, N. Y.
De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.

Southwark Foundry & Machine Co.,
Philadelphia, Pa.

Wickes Bros., Saginaw, Mich.
R. D. Wood & Co., 400 Chestnut St.,
Philadelphia, Pa.

Pumps, Centrifugal, Liners
and Flywheels for—
Taylor Iron & Steel Co., High Bridge,
N. J.

Pumps, Chain—
Cleveland Galvanizing Works, Cleveland.
Goulds Mfg. Co., Seneca Falls, N. Y.

Pumps, Circulating—
Alberger Condenser Co., 95 Liberty St.,
New York.

Brown & Sharpe Mfg. Co., Providence,
R. I.

Dean Bros. Steam Pump Works, Indian-
apolis, Ind.

De Laval Steam Turbine Co., Trenton,
N. J.

Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.

Union Steam Pump Co., Battle Creek,
Mich.

Pumps, Cistern, Pitcher
Spout, &c.—
Barnes Mfg. Co., Mansfield, O.

Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.

Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.

Hess, Snyder & Co., Massillon, O.
Humphreys Mfg. Co., Mansfield, O.

Mast-Foos Co., Springfield, O.
F. E. Myers & Bro., Ashland, O.

Pumps, Compressed Air—
F. E. Myers & Bro., Ashland, O.

Pumps, Compression and
Vacuum—
Barnes Mfg. Co., Mansfield, O.

Buffalo Forge Co., Buffalo, N. Y.
Clark Novelty Co., Rochester, N. Y.

Crosby Steam Gage & Valve Co., Boston.
Dean Bros. Steam Pump Works, Indian-
apolis, Ind.

Deming Co., Salem, O.
Du Bois Iron Works, Du Bois, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.
Humphreys Mfg. Co., Mansfield, O.

John H. McGowan Co., Cincinnati, O.
Union Steam Pump Co., Battle Creek,
Mich.

Pumps, Contractors'—
W. & B. Douglas, Middletown, Ct.

Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.

F. E. Myers & Bro., Ashland, O.
Pumps, Copper—
W. & B. Douglas, Middletown, Ct.

Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.

Laidlaw-Dunn-Gordon Co., 114-118 Liberty
St. New York.
John H. McGowan Co., Cincinnati, O.

Mast-Foos Co., Springfield, O.
F. E. Myers & Bro., Ashland, O.

Pittsburgh Valve, Foundry & Construc-
tion Co., Pittsburgh, Pa.

Union Steam Pump Co., Battle Creek,
Mich.

Pumps, Diaphragm—
American Well Works, Aurora, Ill.

Barnes Mfg. Co., Mansfield, O.
Boston & Lockport Block Co., Boston.

W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.

Humphreys Mfg. Co., Mansfield, O.
Pumps, Electric—
Allentown Rolling Mills, Allentown, Pa.

American Well Works, Aurora, Ill.
Buffalo Forge Co., Buffalo, N. Y.

A. D. Cook, Lawrenceburg, Ind.
Dean Bros. Steam Pump Works, Indian-
apolis, Ind.

De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.
Du Bois Iron Works, Du Bois, Pa.

General Electric Co., Schenectady, N. Y.
Goulds Mfg. Co., Seneca Falls, N. Y.

John H. McGowan Co., Cincinnati, O.
F. E. Myers & Bro., Ashland, O.

Northern Electrical Mfg. Co., Madison,
Wis.

Union Steam Pump Co., Battle Creek,
Mich.

Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Pumps, Elevator—
Allentown Rolling Mills, Allentown, Pa.

Buffalo Forge Co., Buffalo, N. Y.
Dean Bros. Steam Pump Works, Indian-
apolis, Ind.

W. & B. Douglas, Middletown, Ct.
Du Bois Iron Works, Du Bois, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.
A. D. Granger Co., West St. Bldg., N. Y.

John H. McGowan Co., Cincinnati, O.
Union Steam Pump Co., Battle Creek,
Mich.

Pumps, Engine, Gas and Oil—
Du Bois Iron Works, Du Bois, Pa.

Pumps, Fire—
American Well Works, Aurora, Ill.

Buffalo Forge Co., Buffalo, N. Y.
Dean Bros. Steam Pump Works, Indian-
apolis, Ind.

De Laval Steam Turbine Co., Trenton,
N. J.

W. & B. Douglas, Middletown, Ct.
Du Bois Iron Works, Du Bois, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.
A. D. Granger Co., West St. Bldg., N. Y.

Humphrey Machine Co., Keene, N. H.
Humphreys Mfg. Co., Mansfield, O.

John H. McGowan Co., Cincinnati, O.
Mast-Foos Co., Springfield, O.

F. E. Myers & Bro., Ashland, O.
Union Steam Pump Co., Battle Creek,
Mich.

Pumps, Force—
American Well Works, Aurora, Ill.

Barnes Mfg. Co., Mansfield, O.

Buffalo Forge Co., Buffalo, N. Y.

Charter Gas Engine Co., Sterling, Ill.

Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.

Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hess-Snyder Co., Mansfield, O.
Humphrey Machine Co., Keene, N. H.
Humphries Mfg. Co., Mansfield, O.
Mast-Foos Co., Springfield, O.
F. E. Myers & Bro., Ashland, O.

Pumps, Gas Engine Start-

ing—
Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.

Pumps, Gas, Gasoline and

Alcohol—

Foos Gas Engine Co., Springfield, O.
Grant Mfg. & Machine Co., Bridgeport, Ct.

Pumps, Gauge Test—

American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Walworth Mfg. Co., Boston, Mass.

Pumps, Grouting, Sewerage,

Quarry—

American Well Works, Aurora, Ill.
Barnes Mfg. Co., Mansfield, O.
Boston & Lockport Block Co., Boston.
Buffalo Forge Co., Buffalo, N. Y.
Dean Bros. Steam Pump Works, Indianapolis, Ind.

De Laval Steam Turbine Co., Trenton, N. J.

Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.

Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.

Humphries Mfg. Co., Mansfield, O.
Ingersoll-Rand Co., 11 Broadway, N. Y.

John H. McGowan Co., Cincinnati, O.
F. E. Myers & Bro., Ashland, O.

Pumps, Ham Preserving—

Deming Co., Salem, O.
Goulds Mfg. Co., Seneca Falls, N. Y.

Silver Mfg. Co., Salem, O.

Pumps, Horse-power—

Barnes Mfg. Co., Mansfield, O.
Deming Co., Salem, O.

Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.

Humphries Mfg. Co., Mansfield, O.
F. E. Myers & Bro., Ashland, O.

Pumps, Hydraulic—

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Dean Bros. Steam Pump Works, Indianapolis, Ind.

W. & B. Douglas, Middletown, Ct.
Charles F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.

Goulds Mfg. Co., Seneca Falls, N. Y.
John H. McGowan Co., Cincinnati, O.

E. H. Mumford Co., 17th and Callowhill Sts., Philadelphia, Pa.

F. E. Myers & Bro., Ashland, O.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Union Steam Pump Co., Battle Creek, Mich.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Watson-Stillman Co., 26 Cortlandt St., New York.

Pumps, Irrigation—

Allentown Rolling Mills, Allentown, Pa.
American Well Works, Aurora, Ill.

Barnes Mfg. Co., Mansfield, O.
Boston & Lockport Block Co., Boston.

Buffalo Forge Co., Buffalo, N. Y.

H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Charter Gas Engine Co., Sterling, Ill.

Dean Bros. Steam Pump Works, Indianapolis, Ind.

De Laval Steam Turbine Co., Trenton, N. J.

Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.

Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.

Humphries Mfg. Co., Mansfield, O.
John H. McGowan Co., Cincinnati, O.

F. E. Myers & Bro., Ashland, O.
Power Specialty Co., 111 Broadway, New York.

Pumps, Jacket—
Humphries Mfg. Co., Mansfield, O.

Pumps, Lift—
American Well Works, Aurora, Ill.

Barnes Mfg. Co., Mansfield, O.
Charter Gas Engine Co., Sterling, Ill.

W. & B. Douglas, Middletown, Ct.
Du Bois Iron Works, Du Bois, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.
Hess-Snyder Co., Mansfield, O.

Humphries Mfg. Co., Mansfield, O.
Mast-Foos Co., Springfield, O.

F. E. Myers & Bro., Ashland, O.

Pumps, Locomotive, Fire—
Hercules Brass & Bell Foundry, Cincinnati, O.

Pumps, Marine—
Dean Bros. Steam Pump Works, Indianapolis, Ind.

W. & B. Douglas, Middletown, Ct.
Du Bois Iron Works, Du Bois, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.
F. E. Myers & Bro., Ashland, O.

Union Steam Pump Co., Battle Creek, Mich.

Pumps, Mine (Cylinders and Heads)—

Allentown Rolling Mills, Allentown, Pa.
American Well Works, Aurora, Ill.

Barnes Mfg. Co., Mansfield, O.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Buffalo Forge Co., Buffalo, N. Y.
Dean Bros. Steam Pump Works, Indianapolis, Ind.

De Laval Steam Turbine Co., Trenton, N. J.

Deming Co., Salem, O.
Du Bois Iron Works, Du Bois, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.

Ingersoll-Rand Co., 11 Broadway, New York.

F. E. Myers & Bro., Ashland, O.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Union Steam Pump Co., Battle Creek, Mich.

Pumps, Motor Boat, Bilge—
Bevin Bros. Mfg. Co., East Hampton, Ct.

Pumps, Natural Gas—
Du Bois Iron Works, Du Bois, Pa.

Norwalk Iron Works Co., So. Norwalk, Ct.

Riverside Engine Co., Oil City, Pa.
Union Steam Pump Co., Battle Creek, Mich.

Pumps, Oil—
Barnes Mfg. Co., Mansfield, O.

- Brown & Sharpe Mfg. Co., Providence, R. I.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., Salem, O.
 W. & B. Douglas, Middletown, Ct.
 Du Bois Iron Works, Du Bois, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
 John H. McGowan Co., Cincinnati, O.
 Pratt & Whitney Co., Hartford, Ct.
 Tate, Jones & Co., Inc., Pittsburgh, Pa.
 Union Steam Pump Co., Battle Creek, Mich.
Pumps, Oil and Air, Hand—
 Lunkenheimer Co., Cincinnati, O.
Pumps, Oil, Machine—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Du Bois Iron Works, Du Bois, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Landis Machine Co., Waynesboro, Pa.
 Pratt & Whitney Co., Hartford, Ct.
Pumps, Oil, Transfer—
 Wilson & Friend Co., 200 E. Kinzie St., Chicago, Ill.
Pumps, Pitcher Spout—
 (See Pumps, Cistern.)
Pumps, Plumbers' and Gas Fitters—
 Barnes Mfg. Co., Mansfield, O.
 Deming Co., Salem, O.
 W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
Pumps, Power—
 American Well Works, Aurora, Ill.
 Barnes Mfg. Co., Mansfield, O.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Buffalo Forge Co., Buffalo, N. Y.
 Charter Gas Engine Co., Sterling, Ill.
 A. D. Cook, Lawrenceburg, Ind.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., Salem, O.
 W. & B. Douglas, Middletown, Ct.
 Du Bois Iron Works, Du Bois, Pa.
 Richard Dudgeon, 24-26 Columbia St., New York.
 Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
 John H. McGowan Co., Cincinnati, O.
 Mast-Foos Co., Springfield, O.
 F. E. Myers & Bro., Ashland, O.
 Frank L. Patterson & Co., 26 Cortlandt St., New York.
 Union Steam Pump Co., Battle Creek, Mich.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Watson-Stillman Co., 26 Cortlandt St., New York.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Pumps, Pressure—
 Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
 Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 W. & B. Douglas, Middletown, Ct.
 Du Bois Iron Works, Du Bois, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 John H. McGowan Co., Cincinnati, O.
 F. E. Myers & Bro., Ashland, O.
 Union Steam Pump Co., Battle Creek, Mich.
Pumps, Private Water Works—
 F. E. Myers & Bro., Ashland, O.
Pumps, Quarry—
 (See Pumps, Grouting, Sewerage and Quarry.)
Pumps, Ratchet Handle—
 F. E. Myers & Bro., Ashland, O.
Pumps, Rotary—
 American Well Works, Aurora, Ill.
 Connersville Blower Co., Connersville, Ind.
 W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 (See also Pumps, Centrifugal.)
Pumps, Self Measuring—
 Enterprise Mfg. Co., of Pa., Philadelphia, Pa.
Pumps, Sewage—
 (See Pumps, Grouting, Sewerage, Quarry.)
Pumps, Ship and Deck—
 Abendroth & Root Mfg. Co., Newburgh, N. Y.
 Barnes Mfg. Co., Mansfield, O.
 Boston & Lockport Block Co., Boston.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Deming Co., Salem, O.
 W. & B. Douglas, Middletown, Ct.
 Du Bois Iron Works, Du Bois, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
 John H. McGowan Co., Cincinnati, O.
 F. E. Myers & Bro., Ashland, O.
Pumps, Sinking—
 American Well Works, Aurora, Ill.
 Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Pumps, Siphon—
 Barnes Mfg. Co., Mansfield, O.
 W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphries Mfg. Co., Mansfield, O.
 John S. Leng's Son & Co., 33 Murray St., New York.
 Mast-Foos Co., Springfield, O.
 F. E. Myers & Bro., Ashland, O.
Pumps, Spraying—
 Barnes Mfg. Co., Mansfield, O.
 Deming Co., Salem, O.
 W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hess-Snyder Co., Massillon, O.
 Humphries Mfg. Co., Mansfield, O.
 F. E. Kohler & Co., Canton, O.
 Mast-Foos Co., Springfield, O.
 F. E. Myers & Bro., Ashland, O.
Pumps, Steam—
 American Well Works, Aurora, Ill.
 Buffalo Forge Co., Buffalo, N. Y.
 A. D. Cook, Lawrenceburg, Ind.
 Dean Bros. Steam Pump Works, Indianapolis, Ind.
 Du Bois Iron Works, Du Bois, Pa.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 A. D. Granger Co., West St. Bldg., N. Y.
 Hercules Brass & Bell Foundry, Cincinnati, O.
 E. Keeler Co., Williamsport, Pa.
 Mason Regulator Co., Boston, Mass.
 Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Union Steam Pump Co., Battle Creek, Mich.
Watson-Stillman Co., 26 Cortlandt St., New York.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS

Charles Behlen, 72 Trinity Pl., New York.
Carlin Machinery & Supply Co., Inc., Allegheny, Pa.
Central Station Improvement Co., McNadnock Block, Chicago, Ill.
Cleveland Belting & Machinery Co., Cleveland, O.
Thomas P. Conard & Co., 119 S. 4th St., Philadelphia, Pa.
John Henning & Son, 1016 E. Susquehanna Ave., Philadelphia, Pa.
Bent, E. Kelley & Son, 91 Liberty St., New York.
McDowell & Co., Allegheny, Pa.
John H. McGowan Co., Cincinnati, O.
Edgar M. Moore & Co., Pittsburgh, Pa.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
L. F. Seyfert's Sons, Inc., 437-441 N. 3d St., Philadelphia, Pa.
Frank Toomey, 127-131 N. 3d St., Philadelphia, Pa.
Jacob Ullman, Buffalo, N. Y.
Wickes Bros., Saginaw, Mich.
C. C. Wormer Machinery Co., Detroit, Mich.

Pumps, Steam Jet—

John H. McGowan Co., Cincinnati, O.
Pumps, Steam Turbine—
American Well Works, Aurora, Ill.
Watson-Stillman Co., 26 Cortlandt St., New York.

Pumps, Sump—

(See Pumps, Centrifugal.)

Pumps, Tank—

American Well Works, Aurora, Ill.
Barnes Mfg. Co., Mansfield, O.
Buffalo Forge Co., Buffalo, N. Y.
A. D. Cook, Lawrenceburg, Ind.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.
Du Bois Iron Works, Du Bois, Pa.
Goulds Mfg. Co., Massillon, O.
A. D. Granger Co., West St. Bldg., N. Y.
Hess-Snyder Co., Massillon, O.
Humphries Mfg. Co., Mansfield, O.
John H. McGowan Co., Cincinnati, O.
Mast-Foos Co., Springfield, O.
F. E. Myers & Bro., Ashland, O.
Union Steam Pump Co., Battle Creek, Mich.

Pumps, Traction Engine—

F. E. Myers & Bro., Ashland, O.

Pumps, Trench—

Barnes Mfg. Co., Mansfield, O.
Boston & Lockport Block Co., Boston.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.
Humphries Mfg. Co., Mansfield, O.

Pumps, Triplex—

Deming Co., Salem, O.
W. & B. Douglas, Middletown, Ct.
Goulds Mfg. Co., Seneca Falls, N. Y.

Pumps, Underwriter—

Dean Bros. Steam Pump Works, Indianapolis, Ind.

Pumps, Vacuum—

Alberger Condenser Co., 95 Liberty St., New York.

Bury Compressor Co., Erie, Pa.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Clayton Air Compressor Works, 114-118 Liberty St., New York.

Connersville Blower Co., Connersville, Ind.

Dean Bros. Steam Pump Works, Indianapolis, Ind.

Goulds Mfg. Co., Seneca Falls, N. Y.

A. D. Granger Co., West St. Bldg., N. Y.

Union Steam Pump Co., Battle Creek, Mich.

Robt. Wetherill & Co., Inc., Chester, Pa.

Pumps, Vault and Cesspool—

Barnes Mfg. Co., Mansfield, O.

Boston & Lockport Block Co., Boston.

Du Bois Iron Works, Du Bois, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.

Humphries Mfg. Co., Mansfield, O.

Pumps, Water Works—

American Well Works, Aurora, Ill.

Bethlehem Steel Co., So. Bethlehem, Pa.

Buffalo Forge Co., Buffalo, N. Y.

De Laval Steam Turbine Co., Trenton, N. J.

Deming Co., Salem, O.

Du Bois Iron Works, Du Bois, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.

A. D. Granger Co., West St. Bldg., N. Y.

John H. McGowan Co., Cincinnati, O.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Southwark Foundry & Machine Co., Washington Ave. & 6th St., Phila.

Union Steam Pump Co., Battle Creek, Mich.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Pumps, Windmill—

Barnes Mfg. Co., Mansfield, O.

A. D. Cook, Lawrenceburg, Ind.

Deming Co., Salem, O.

W. & B. Douglas, Middletown, Ct.

Du Bois Iron Works, Du Bois, Pa.

Goulds Mfg. Co., Seneca Falls, N. Y.

Hess-Snyder Co., Massillon, O.

Humphries Mfg. Co., Mansfield, O.

Mast-Foos Co., Springfield, O.

F. E. Myers & Bro., Ashland, O.

Pumps, Wing—

(See Pumps, Centrifugal.)

Pumps, Yacht—

(See Pumps, Boat, Cellar, &c.)

Punches and Dies, Com-

pound—

American Watch Tool Co., Waltham, Mass.

Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Ferracute Machine Co., Bridgeton, N. J.

Otto Konigslow Mfg. Co., Cleveland, O.

Waltham Machine Works, Waltham, Mass.

Punches and Dies, Ship-

yard—

Badger State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.

E. W. Bliss Co., Brooklyn, N. Y.

Cincinnati Punch & Shear Co., Cincinnati, O.

**Punches and Fasteners,
Paper**

Eyelet Tool Co., Boston, Mass.
E. B. Stimpson Co., 31 Spruce St., N. Y.

**Punches and Shears for
Plate Work—**

American Die & Tool Co., Reading, Pa.
Armstrong-Blum Mfg. Co., 109 N. Fran-
cisco Ave., Chicago, Ill.

Badger State Machine Co., Janesville,
Wis.

Bertach & Co., Cambridge City, Ind.
E. W. Bliss Co., Brooklyn, N. Y.

Cincinnati Punch & Shear Co., Cincin-
nati, O.

Ferracute Machine Co., Bridgeton, N. J.
Lewis Foundry & Machine Co., Groveton,
Pa.

Long & Allstatter Co., Hamilton, O.
McDougall & Potter Co., 606-612 W. 55th
St., New York.

Mackintosh, Hemphill & Co., Pittsburgh.
New Doty Mfg. Co., Janesville, Wis.

Niles-Bement-Pond Co., 111 Broadway, N. Y.
Roversford Foundry & Machine Co., Roy-
ersford, Pa.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Williams, White & Co., Inc., Moline, Ill.

Punches, Automatic Center—

L. S. Starrett Co., Athol, Mass.

Punches, Belt—

W. J. Clark Co., Salem, O.
Eyelet Tool Co., Boston, Mass.

Krauter & Co., Inc., Newark, N. J.
Charles Morrill, 27 Broadway, N. Y.

Otis A. Smith, Rockfall, Ct.
Smith & Hemenway Co., 108-110 Duane
St., New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Punches, Blacksmiths—

Hubbard & Co., Pittsburgh, Pa.

**Punches, Butcher Saw
Blade—**

Goodell-Pratt Co., Greenfield, Mass.
H. G. Thompson & Son Co., New Haven,
Ct.

Punches, Center—

(See Punches, Drive.)

Punches, Centering—

American Die & Tool Co., Reading, Pa.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Goodell Mfg. Co., Greenfield, Mass.
Krauter & Co., Inc., Newark, N. J.

Punches, Check—

Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Punches, Cloth and Cattle—

Krauter & Co., Inc., Newark, N. J.

**Punches, Conductor, Ticket,
Etc.—**

American Railway Supply Co., 42 Park
Place, New York.

Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Krauter & Co., Inc., Newark, N. J.
Smith & Egge Mfg. Co., Bridgeport, Ct.

Tower & Lyon Co., 95 Chambers St., N. Y.
R. Woodman Mfg. & Supply Co., Boston.

Punches, Drive—

Bemis & Call Hardware & Tool Co.,
Springfield, Mass.

Buck Bros., Millbury, Mass.
Cronk & Carrier Mfg. Co., Elmira, N. Y.

Ducharmes & Co., Shelburne Falls, Mass.
Eyelet Tool Co., Boston, Mass.

Goodell-Pratt Co., Greenfield, Mass.

Keystone Mfg. Co., Buffalo, N. Y.
Krauter & Co., Inc., Newark, N. J.

M. Lanx & Sons, Pittsburgh, Pa.
Massachusetts Saw Works, Chicopee,
Mass.

H. H. Mayhew Co., Shelburne Falls,
Mass.

Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Richmond Forgings Corporation, Rich-
mond, Va.

L. S. Starrett Co., Athol, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Tower & Lyon Co., 95 Chambers St., N. Y.

Transue & Williams Co., Alliance, O.

Tuck Mfg. Co., Brockton, Mass.

Whitman & Barnes Mfg. Co., Chicago.

Punches, Embossing—

E. W. Bliss Co., Brooklyn, N. Y.

Ferracute Machine Co., Bridgeton, N. J.

Otto Konigslow Mfg. Co., Cleveland, O.

Schwerdtle Stamp Co., Bridgeport, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

R. Woodman Mfg. & Supply Co., Boston.

Punches, Hand and Power—

Adriance Machine Works, Brooklyn, N. Y.

Alliance Machine Co., Alliance, O.

American Die & Tool Co., Reading, Pa.

American Lock Nut Co., Oregon, Ill.

Armstrong-Blum Mfg. Co., 109 N. Fran-
cisco Ave., Chicago, Ill.

Badger State Machine Co., Janesville,
Wis.

Bertsch & Co., Cambridge City, Ind.

Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

E. W. Bliss Co., Brooklyn, N. Y.

Buffalo Forge Co., Buffalo, N. Y.

Cincinnati Punch & Shear Co., Cincin-
nati, O.

Cleveland Punch & Shear Works Co.,
Cleveland, O.

R. M. Clough, Tolland, Ct.

Consolidated Press & Tool Co., Hastings,
Mich.

Richard Dudgeon, 24-26 Columbia St., N. Y.

Excelsior Tool & Machine Co., E. St.
Louis, Ill.

Eyelet Tool Co., Boston, Mass.

Ferracute Machine Co., Bridgeton, N. J.

Goodell-Pratt Co., Greenfield, Mass.

Hilles & Jones Co., Wilmington, Del.

R. E. Kidder, Worcester, Mass.

E. Konigslow Stamping & Tool Works,
Cleveland, O.

Otto Konigslow Mfg. Co., Cleveland, O.

J. Howard Lingle, Bellefonte, Pa.

Long & Allstatter Co., Hamilton, O.

Morgan Engineering Co., Alliance, O.

Chas. Morrill, 27 Broadway, New York.

Frank Moosberg & Co., Attleboro, Mass.

New Doty Mfg. Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo,
N. Y.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Novelty Iron Works, Dubuque, Ia.

George A. Ohl & Co., Newark, N. J.

Henry Pels & Co., 66 Broad St., N. Y.

Pratt & Whitney Co., Hartford, Ct.

Roversford Foundry & Machine Co.,
Roversford, Pa.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Vandyck, Churchill Co., 8 Dey St., N. Y.

W. & S. Mfg. Co., Worcester, Mass.

Watson-Stillman Co., 26 Cortlandt St., New York.

Wickes Bros., Saginaw, Mich.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Williams, White & Co., Moline, Ill.
R. Woodman Mfg. & Supply Co., Boston.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
W. R. Beatty Machinery & Equipment Co., Pittsburgh, Pa.

Carlin Machinery & Supply Co., Inc., Allegheny, Pa.

Barclay M. Everson, Pittsburgh, Pa.
Hill, Clarke & Co., Boston, Mass.

Irring Mfg. & Tool Co., 157 Chambers St., New York.

J. J. McCabe, 14 Day St., New York.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Marshall & Hinchart Machinery Co., 62 S. Canal St., Chicago, Ill.

Edgar M. Moore & Co., Pittsburgh, Pa.
Motch & Merryweather Machinery Co., Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Joseph T. Byerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

L. F. Seyfert's Sons, Inc., 437-441 N. 3d St., Philadelphia, Pa.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Punches, Hand, Tube and Manhole.

American Die & Tool Co., Reading, Pa.
Badger State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.
Cincinnati Punch & Shear Co., Cincinnati, O.

Hilles & Jones Co., Wilmington, Del.
Long & Allstatter Co., Hamilton, O.

Morgan Engineering Co., Alliance, O.
New Doty Mfg. Co., Janesville, Wis.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Wickes Bros., Saginaw, Mich.

Punches, Hydraulic.

Alliance Machine Co., Alliance, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Richard Dudgeon, 24-26 Columbia St., New York.

A. L. Henderer's Sons, Wilmington, Del.
Mackintosh, Hemphill & Co., Pittsburgh.

Morgan Engineering Co., Alliance, O.
Niles-Bement-Pond Co., 111 Broadway, New York.

United Engineering & Foundry Co., Pittsburgh, Pa.

Watson-Stillman Co., 26 Cortlandt St., New York.

Wickes Bros., Saginaw, Mich.
Williams, White & Co., Moline, Ill.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Punches, Multiple.

Adriance Machine Works, Brooklyn, N. Y.
Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.

Badger State Machine Co., Janesville, Wis.
Bertsch & Co., Cambridge City, Ind.

E. W. Bliss Co., Brooklyn, N. Y.
Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.
Hilles & Jones Co., Wilmington, Del.

Long & Allstatter Co., Hamilton, O.
Morgan Engineering Co., Alliance, O.

New Doty Mfg. Co., Janesville, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 111 Broadway, N. Y.
George A. Ohl & Co., Newark, N. J.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Williams, White & Co., Moline, Ill.

Punches, Oval.

(See Punches, Drive.)

Punches, Paper.

Eyellet Tool Co., Boston, Mass.
Ferracute Machine Co., Bridgeton, N. J.

Chas. Morrill, 277 Broadway, New York.
E. B. Stimpson Co., 31 Spruce St., N. Y.

R. Woodman Mfg. & Supply Co., Boston.

Punches, Portable.

Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.

Punches, Prick.

(See Punches, Drive.)

Punches, R. R. Track.

Hubbard & Co., Pittsburgh, Pa.

Punches, Revolving.

(See Punches, Spring.)

Punches, Round.

(See Punches, Drive.)

Punches, Saw.

Herry Daston & Sons, Philadelphia, Pa.
Gould-Pratt Co., Greenfield, Mass.

Punches, Screw.

American Die & Tool Co., Reading, Pa.
Badger State Machine Co., Janesville, Wis.

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

Richard Dudgeon, 24-26 Columbia St., N. Y.

A. L. Henderer's Sons, Wilmington, Del.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Punches, Spiral Shear.

Pratt & Whitney Co., Hartford, Ct.

Punches, Spring.

Eyellet Tool Co., Boston, Mass.
John H. Graham & Co., 113 Chambers St., New York.

Kraemer & Co., Inc., Newark, N. J.
Louis Sacks, Newark, N. J.

Smith & Egge Mfg. Co., Bridgeport, Ct.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Tower & Lyon Co., 95 Chambers St., N. Y.

Punches, Ticket.

(See Punches, Conductor, Ticket, &c.)

Punching, Cold.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Punching Machines, I-Beam.

Badger State Machine Co., Janesville, Wis.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

E. W. Bliss Co., Brooklyn, N. Y.

- Cincinnati Punch & Shear Co., Cincinnati, O.
 Richard Dudgeon, 24-26 Columbia St., New York.
 Ferracute Machine Co., Bridgeton, N. J.
 A. L. Henderson's Sons, Wilmington, Del.
 Hilles & Jones Co., Wilmington, Del.
 Long & Allstatter Co., Hamilton, O.
 Mackintosh, Hemphill & Co., Pittsburgh.
 Morgan Engineering Co., Alliance, O.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Henry Pels & Co., 66 Broad St., N. Y.
 Watson-Stillman Co., 26 Cortlandt St., New York.
 Williams, White & Co., Moline, Ill.
Punching Machines.
Beam, Hand—
 Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.
 Badger State Machine Co., Janesville, Wis.
Punching, Metal—
 Erdle Perforating Co., Rochester, N. Y.
 Grant Mfg. & Machine Co., Bridgeport, Ct.
 Harrington & King Perforating Co., 224 No. Union St., Chicago, Ill.
 Helwig Mfg. Co., St. Paul, Minn.
 W. & S. Mfg. Co., Worcester, Mass.
Punching Presses—
 (See Presses.)
Purifiers, Feed Water—
 Dodge Mfg. Co., Mishawaka, Ind.
 Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
 Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
 Benj. F. Kelley & Son, Brooklyn, N. Y.
 F. L. Patterson & Co., 26 Cortlandt St., New York.
 Petroleum Iron Works Co., Sharon, Pa.
 Wm. B. Seale & Sons Co., Pittsburgh.
 Walworth Mfg. Co., Boston, Mass.
 Wickes Bros., Saginaw, Mich.
Purifying and Softening Systems, Water—
 (See Water Softening and Purifying Systems.)
Purifying Pumps—
 (See Pumps, Elevator Bucket and Purifying.)
Push Buttons, Carts, Plates—
 (See Buttons, Carts, Plates.)
Pushers, Car—
 Boston & Lockport Block Co., Boston.
 W. J. Clark Co., Salem, O.
 Hubbard & Co., Pittsburgh, Pa.
 Osborn Mfg. Co., Cleveland, O.
 Steel Basket Co., Cedar Rapids, Ia.
 R. Woodman Mfg. & Supply Co., Boston.
 Walter A. Zelnicker Supply Co., St. Louis, Mo.
Pushes, Electric Bell—
 W. R. Hartigan, Collinsville, Ct.
 Reading Hardware Co., Reading, Pa.
Putty, Stove—
 Cleveland Stone Co., Cleveland, O.
 S. Obermayer Co., Cincinnati, O.
Pyrometers—
 American Steam Gauge & Valve Mfg. Co., Boston, Mass.
 Ashton Valve Co., Boston, Mass.
 Bristol Co., Waterbury, Ct.
 Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.
 Eimer & Amend, 235 3d Ave., New York.
 Charles Engelhard, 32 Cortlandt St., N. Y.
 Uehling Instrument Co., Passaic, N. J.
Pyrometers, Indicating—
 Bristol Co., Waterbury, Ct.
Pyrometers, Recording—
 Bristol Co., Waterbury, Ct.
 Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.
 Uehling Instrument Co., Passaic, N. J.
Quadrants, Brass Skylight—
 W. & J. Tiebout, 118 Chambers St., N. Y.
Quarry Bars—
 Ingersoll-Rand Co., 11 Broadway, N. Y.
Quarry Machinery—
 Browning Engineering Co., Cleveland, O.
 Ingersoll-Rand Co., 11 Broadway, N. Y.
 Lidgerwood Mfg. Co., 36 Liberty St., N. Y.
Quarry Pumps—
 (See Pumps, Grouting and Quarry.)
Quartering Machines—
 Niles-Bement-Pond Co., 111 Broadway, New York.
Quartz Ware, Fused—
 Charles Engelhard, 32 Cortlandt St., N. Y.
Quoins, Printers—
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Quoits—
 Reading Hardware Co., Reading, Pa.
 Wrightsville Hardware Co., Wrightsville, Pa.
Rabbit and Butt Gauges—
 (See Gauges, Butt and Rabbit.)
Rack Cutting Machines, Automatic—
 Gould & Eberhardt, Newark, N. J.
 F. E. Reed Co., Worcester, Mass.
 Sloan & Chace Mfg. Co., Ltd., Newark, N. J.
 (See also Cutting Machines, Rack.)
Racks, Bakery—
 Andrews Wire & Iron Works, Rockford, Ill.
 Parker Wire Goods Co., Worcester, Mass.
 Van Dorn Iron Works Co., Cleveland, O.
 Wire Goods Co., Worcester, Mass.
Racks, Bars and Rings, Towel—
 American Ring Co., Waterbury, Ct.
 Kilbourne Mfg. Co., Troy, N. Y.
 Landers, Fray & Clark, New Britain, Ct.
 Parker Wire Goods Co., Worcester, Mass.
 Piqua Handle & Mfg. Co., Piqua, O.
 Raymond Mfg. Co., Cory, Pa.
 Spencer Wire Co., Worcester, Mass.
 Taplin Mfg. Co., New Britain, Ct.
Racks, Bicycle—
 (See Stands and Holders, Bicycle.)
Racks, Box—
 Evan L. Reed Mfg. Co., Sterling, Ill.
Racks, Brass—
 Boston Gear Works, Norfolk Downs, Mass.
 Fawcett Machine Co., Pittsburgh, Pa.
 New Process Raw Hide Co., Syracuse, N. Y.
 W. & J. Tiebout, 118 Chambers St., N. Y.
Racks, Card, Book and Paper—
 Andrews Wire & Iron Works, Rockford, Ill.
 Kilbourne Mfg. Co., Troy, N. Y.
 Parker Wire Goods Co., Worcester, Mass.

Peck, Stow & Wilcox Co., 27 Murray St., New York.
Wrightsville Hardware Co., Wrightsville, Pa.

Racks, Coffee Can—
Evan L. Reed Mfg. Co., Sterling, Ill.
Racks, Collapsible Display, Metal—

Evan L. Reed Mfg. Co., Sterling, Ill.
Racks, Cracker Can—
Evan L. Reed Mfg. Co., Sterling, Ill.

Racks, Cut Metal—
Fawcus Machine Co., Pittsburgh, Pa.
New Process Raw Hide Co., Syracuse, N. Y.

R. D. Nuttall Co., Pittsburgh, Pa.
Racks, Display, Wire—
Andrews Wire & Iron Works, Rockford, Ill.

Racks, Envelope—
Wrightsville Hardware Co., Wrightsville, Pa.

Racks, Filling, Wire—
Estey Wire Works Co., 59 Fulton St., New York.

Racks, Hat and Coat—
Kilbourne Mfg. Co., Troy, N. Y.
Raymond Mfg. Co., Ltd., Corry, Pa.

Racks, Hay—
(See Stable Fixtures.)

Racks, Hose—
Specialty Mfg. Co., St. Anthony Park, Minn.

Racks, Iron and Steel—
Terrell's Equipment Co., Grand Rapids, Mich.

Racks, Laundry—
W. J. Clark Co., Salem, O.

Racks, Meat and Poultry—
Bernard Gloekler Co., Pittsburgh, Pa.

Racks, Milk Bottle—
(See Carriers, Milk Bottle.)

Racks, Oven—
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Racks, Package—
Evan L. Reed Mfg. Co., Sterling, Ill.

Racks, Pan—
Evan L. Reed Mfg. Co., Sterling, Ill.

Racks, Paper Bag—
Evan L. Reed Mfg. Co., Sterling, Ill.

Racks, Pew, Book—
Ludlow-Saylor Wire Co., St. Louis, Mo.

Racks, Steel, Factory and Stock Room—
Manufacturing Equipment & Engineering Co., Boston, Mass.

Racks, Steel Goods—
American Fork & Hoe Co., Cleveland, O.
(See also Brackets, Shovel, Hoe, Rake, Fork, &c.)

Racks, Towel—
(See Racks, Bars and Rings.)

Radiator Screens—
(See Screens, Radiator.)

Radiators, Disc, for Automobiles—
Whitlock Coil Pipe Co., Hartford, Ct.

Radiators, Electric—
General Electric Co., Schenectady, N. Y.

Radiators, Gas and Oil—
Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Radiators, Steam and Hot Water—
Jarecki Mfg. Co., Erie, Pa.

Rafter Brackets, Grapples—
(See Brackets, Grapples.)

Rail Benders, Bonds—
(See Benders, Bonds.)

Rail Breakers—
(See Breakers, Rail.)

Rail, Door and Barn Door—
Bridgeport Brass Co., 253 B'way, N. Y.

Chicago Spring Butt Co., Chicago, Ill.
Cronk & Carrier Mfg. Co., Elmira, N. Y.

Griffin Mfg. Co., Erie, Pa.
Lane Bros. Co., Poughkeepsie, N. Y.

Lawrence Bros., Sterling, Ill.
McKinney Mfg. Co., Allegheny, Pa.

S. B. Martin, Dalton, O.
P. E. Myers & Bro., Ashland, O.

National Mfg. Co., Sterling, Ill.
Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Safety Door Hanger Co., Ashland, O.
Stanley Works, New Britain, Ct.

Railings, Altar, Brass or Bronze—
Buffalo Wire Works Co., Buffalo, N. Y.

Railing and Brackets, Office, Counter, &c.—
Andrews Wire & Iron Works, Rockford, Ill.

Buffalo Wire Works Co., Buffalo, N. Y.
City Forge & Iron Works, Dayton, O.

Clinton Wire Cloth Co., Clinton, Mass.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Dufur & Co., Baltimore, Md.
Enterprise Foundry & Fence Co., Indianapolis, Ind.

Estey Wire Works Co., 59 Fulton St., New York.

Forest City Steel & Iron Co., Cleveland, O.

Gilbert & Bennett Mfg. Co., 277 Broadway, New York.

Glen Mfg. Co., Ellwood City, Pa.
Howard & Morse, 45 Fulton St., N. Y.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.
National Iron & Wire Co., Cleveland, O.

Stewart Iron Works Co., Cincinnati, O.
W. S. Tyler Co., Cleveland, O.

Van Dorn Iron Works Co., Cleveland, O.
Worcester Wire Novelty Co., Canton, O.

Wright Wire Co., Worcester, Mass.

Railings, Area—
(See Iron Work, Builders'.)

Railings, Balcony—
(See Iron Work, Builders'.)

Railings, Boat, Ornamental—
Buffalo Wire Works Co., Buffalo, N. Y.

Railings, Brass—
(See Railing and Brackets.)

Railings, Bridge—
Chester B. Albree Iron Works, Allegheny, Pa.

Belmont Iron Works, Philadelphia, Pa.

Buffalo Wire Works Co., Inc., Buffalo, N. Y.
 Stewart Iron Works Co., Cincinnati, O.
Railroad Cars, Forgings, &c.

(See Cars, Forgings, &c.)

Railroad Equipment—
 Atlas Car & Mfg. Co., Cleveland, O.
 Hirsch Rolling Mill Co., St. Louis, Mo.
 Arthur Koppel, Pittsburgh, Pa.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Northern Engineering Works, Detroit, Mich.
 T. H. Symington Co., Baltimore, Md.
 Ernst Wiener Co., Broad and Beaver Sts., New York.
 Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Dallett & Co., Harrison Bldg., Philadelphia, Pa.
 General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
 Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.
 Machinists' Supply Co., 16-18 So. Canal St., Chicago, Ill.
 Richardson & Co., Inc., Pittsburgh, Pa.
 Wonham & Magor, 29 Broadway, N. Y.
 Woodward, Wight & Co., Ltd., New Orleans, La.
 Walter A. Zelnicker Supply Co., St. Louis, Mo.

Railroad Equipment, Electric—
 General Electric Co., Schenectady, N. Y.
 Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Railroad Plates, Tie—
 Lackawanna Steel Co., 2 Rector St., N. Y.
Railroad Shop Wood Working Machinery—
 (See Cars, Shop, Wood Working Machinery.)

Railroad Trucks—
 (See Trucks, Baggage and Express.)

Railroad Unloaders—
 (See Unloaders, Railroad.)

Railroads, Cable—
 (See Conveying Machinery.)

Rails and Hangers, Suspended—
 Ney Mfg. Co., Canton, O.

Rails, Dash—
 Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Rails, Light—
 Atlas Car & Mfg. Co., Cleveland, O.
 Carnegie Steel Co., Pittsburgh, Pa.
 Hirsch Rolling Mill Co., St. Louis, Mo.
 Interstate Iron & Steel Co., First National Bank Bldg., Chicago, Ill.
 Jones & Laughlin Steel Co., Pittsburgh, Pa.
 Arthur Koppel, Pittsburgh, Pa.
 Lackawanna Steel Co., 2 Rector St., N. Y.
 Maryland Rail Co., Cumberland, Md.
 Republic Iron & Steel Co., Pittsburgh, Pa.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
 Robert M. Cunliffe, 11th St. & Washington Ave., Philadelphia, Pa.
 General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
 J. H. Hillman & Son, Pittsburgh, Pa.
 Hyde Bros. & Co., Pittsburgh, Pa.

Henry Lewis & Co., 26 S. 15th St., Philadelphia, Pa.
 North Works, Illinois Steel Co., Chicago, Ill.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
 Robinson & Orr, Pittsburgh, Pa.
 Jos. Schonthal Iron Co., Columbus, O.
 Shook & Fletcher, Birmingham, Ala.
 Ernst Wiener Co., Broad & Beaver Sts., New York.
 Wonham & Magor, 29 Broadway, N. Y.
 Walter A. Zelnicker Supply Co., St. Louis, Mo.

Rails, Old—

(See Material, Old.)

Rails, Relaying—

Thos. P. Conard & Co., Harrison Bldg., Philadelphia, Pa.
 Continental Iron & Steel Co., 66 Broad St., New York.

Dallett & Co., Harrison Bldg., Philadelphia, Pa.
 General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

J. H. Hillman & Son, Pittsburgh, Pa.
 Hirsch Rolling Mill Co., St. Louis, Mo.
 Hyde Bros. & Co., Pittsburgh, Pa.
 Jos. Joseph & Bros. Co., Cincinnati, O.
 Ernest Law & Co., 15th & Market Sts., Philadelphia, Pa.

Jno. Leonard & Co., 220 Broadway, N. Y.
 Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.

Edgar M. Moore & Co., Pittsburgh, Pa.
 F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Richardson & Co., Inc., Pittsburgh, Pa.
 Robinson & Orr, Pittsburgh, Pa.
 Jos. Schonthal Iron Co., Columbus, O.
 Shook & Fletcher, Birmingham, Ala.
 Walsh's Sons & Co., Newark, N. J.
 Wonham & Magor, 29 Broadway, N. Y.
 Walter A. Zelnicker Supply Co., St. Louis, Mo.

Rails, Steel—

Bethlehem Steel Co., So. Bethlehem, Pa.
 Carnegie Steel Co., Pittsburgh, Pa.
 Hillen Steel Rail Works, Utrecht, Holland.

Hirsch Rolling Mill Co., St. Louis, Mo.
 Arthur Koppel, Pittsburgh, Pa.
 Lackawanna Steel Co., 2 Rector St., N. Y.
 Maryland Rail Co., Cumberland, Md.
 Thos. Prosser & Son, 26 Platt St., N. Y.
 Republic Iron & Steel Co., Pittsburgh, Pa.

Tennessee Coal, Iron & Railroad Co., 71 Broadway, New York.

MERCHANTS.

Atlas Car & Mfg. Co., Cleveland, O.
 Barbour-Stockwell Co., Cambridgeport, Mass.
 Bourne-Fuller Co., Cleveland, O.
 Robert M. Cunliffe, 11th St. & Washington Ave., Philadelphia, Pa.
 Dallett & Co., Harrison Bldg., Philadelphia, Pa.
 General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
 J. H. Hillman & Son, Pittsburgh, Pa.
 C. B. Houston & Co., Girard Trust Bldg., Philadelphia, Pa.
 Hyde Bros. & Co., Pittsburgh, Pa.
 Ernest Law & Co., 15th and Market Sts., Philadelphia, Pa.

- Henry Lewis & Co., 26 So. 15th St., Philadelphia, Pa.
 Edgar M. Moore & Co., Pittsburgh, Pa.
 Edmund W. Mudge & Co., Pittsburgh, Pa.
 North Works, Illinois Steel Co., Chicago, Ill.
 F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
 Pierson & Co., 29 Broadway, New York.
 Richardson & Co., Inc., Pittsburgh, Pa.
 Robinson & Orr, Pittsburgh, Pa.
 Joseph T. Ryerson & Son, Chicago, Ill.
 Jos. Schonthal Iron Co., Columbus, O.
 Walsh's Sons & Co., Newark, N. J.
 Wheeler, Mifflin & Co., Fidelity Bldg., Philadelphia, Pa.
 Ernst Wiener Co., Broad & Beaver Sts., New York.
 Walter A. Zelnicker Supply Co., St. Louis, Mo.
- Railways for Industrial Purposes—**
 Atlas Car & Mfg. Co., Cleveland, O.
 Chase Foundry & Mfg. Co., Columbus, O.
 C. W. Hunt Co., West New Brighton, N. Y.
 Arthur Koppel, Pittsburgh, Pa.
 Link-Belt Co., Philadelphia, Pa.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Ernst Wiener Co., Broad & Beaver Sts., New York.
- Raisin Seeders—**
 (See Seeders, Raisin.)
- Rake Machinery—**
 (See Fork, Rake and Hoe Machinery.)
- Rakes, Asphalt—**
 American Fork & Hoe Co., Cleveland, O.
- Rakes, Ballast and Gravel—**
 American Fork & Hoe Co., Cleveland, O.
- Rakes, Garden—**
 American Fork & Hoe Co., Cleveland, O.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 John H. Graham & Co., 113 Chambers St., New York.
 Howard Iron & Tool Co., Bellefonte, Pa.
 Howard Iron & Tool Co., Bellefonte, Pa.
 F. E. Kohler & Co., Canton, O.
 Piqua Handle & Mfg. Co., Piqua, O.
- Rakes, Hay, Horse—**
 Long & Allstatter Co., Hamilton, O.
- Rakes, Lawn—**
 American Fork & Hoe Co., Cleveland, O.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Howard Iron & Tool Co., Bellefonte, Pa.
 F. E. Kohler & Co., Canton, O.
 Ney Mfg. Co., Canton, O.
 Piqua Handle & Mfg. Co., Piqua, O.
- Rakes, Wood, Hand—**
 American Fork & Hoe Co., Cleveland, O.
- Rammers, Foundry—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 Ingersoll-Rand Co., 11 Broadway, N. Y.
 S. Obermayer Co., Cincinnati, O.
 Osborn Mfg. Co., Cleveland, O.
 J. W. Paxson Co., Philadelphia, Pa.
- Rams, Hydraulic—**
 Barnes Mfg. Co., Mansfield, O.
 Deming Co., Salem, O.
 W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Humphreys Mfg. Co., Mansfield, O.
 F. E. Myers & Bro., Ashland, O.
- Power Specialty Co., 111 Broadway, N. Y.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- Ranges, Combination Coal and Gas—**
 Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
 (See also Stoves and Ranges.)
- Ranges, Gas—**
 Griswold Mfg. Co., Erie, Pa.
 Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
- Ranges, Steel—**
 Heas-Snyder Co., Massillon, O.
 Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.
- Rasps and Files—**
 (See Files and Rasps.)
- Rasps, Horse Tooth—**
 Carver File Co., Philadelphia, Pa.
 Henry Diston & Sons, Philadelphia, Pa.
 Heller Bros. Co., Newark, N. J.
 Liveright Bros., Philadelphia, Pa.
 McCaffrey File Co., Philadelphia, Pa.
 Nicholson File Co., Providence, R. I.
- Rat Traps—**
 (See Traps.)
- Ratchet Die Stocks—**
 (See Die Stocks, Ratchet.)
- Ratchet Drills, Pawls—**
 (See Drills, Pawls.)
- Ratchet Screw Drivers—**
 (See Drivers, Screw, Ratchet.)
- Ratchets, Drill, Tap, Wrench, &c.—**
 Keystone Mfg. Co., Buffalo, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Pratt & Whitney Co., Hartford, Ct.
 Walworth Mfg. Co., Boston, Mass.
 Wells Bros. Co., Greenfield, Mass.
- Ratchets, Universal—**
 Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.
- Ratchets, Wire Fence—**
 (See Stretchers, Fence and Wire.)
- Rattlers, Foundry—**
 (See Barrels, Tumbling.)
- Rawhide Belting, Belt Lacing—**
 (See Belting, Belt Lacing.)
- Rawhide Gears—**
 (See Gears.)
- Rawhide Pinions—**
 Poole Engineering & Machine Co., Baltimore, Md.
- Razor Hones, Paste, Strops—**
 (See Hones, Paste, Strops.)
- Razor Strop Hardware—**
 North & Judd Mfg. Co., New Britain, Ct.
 Wire Goods Co., Worcester, Mass.
- Razors—**
 Buck Bros., Millbury, Mass.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Alfred Field & Co., 43 Chambers St., N. Y.
 Adolph Kastor & Bros., 103 Duane St., New York.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
 J. Weiss & Sons Co., Newark, N. J.
- Razors, Safety—**
 O. V. Ball Cutlery Co., Bourse Bldg., Philadelphia, Pa.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 (See Grinders, Holders, Wrenches.)

Real Estate—

(See Manufacturing Sites.)

Real Estate Offices, Portable—

(See Houses, Portable.)

Reamer Grinders, Holders, Wrenches—**Reamer Stands—**Mark Plaster Planer Co., Nashua, N. H.
Skinner Chuck Co., New Britain, Ct.**Reamers—**American Die & Tool Co., Reading, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.

Buck Bros., Millbury, Mass.

Butterfield & Co., Derby Line, Vt.

Chicago Pneumatic Tool Co., Fisher

Bldg., Chicago, Ill.

Cleveland Twist Drill Co., Cleveland, O.

R. M. Clough, Tolland, Ct.

Gem Mfg. Co., Pittsburgh, Pa.

J. M. King & Co., Waterford, N. Y.

Kraemer & Co., Inc., Newark, N. J.

Lapointe Machine Tool Co., Hudson, Mass.

Lincoln-Williams Twist Drill Co., Taunton, Mass.

H. H. Mayhew Co., Shelburne Falls, Mass.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

E. F. Reece Co., Greenfield, Mass.

Standard Tool Co., Cleveland, O.

Stow Flexible Shaft Co., 26th and Callowhill Sts., Philadelphia, Pa.

James Swan Co., Seymour, Ct.

Thick Mfg. Co., Brockton, Mass.

Walworth Mfg. Co., Boston, Mass.

Western Tool & Mfg. Co., Springfield, O.

Whitaker Mfg. Co., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago, Mass.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Reamers, Adjustable—

Brown & Sharpe Mfg. Co., Providence, R. I.

Butterfield & Co., Derby Line, Vt.

Cleveland Twist Drill Co., Cleveland, O.

R. M. Clough, Tolland, Ct.

Lapointe Machine Tool Co., Hudson, Mass.

Morse Twist Drill & Machine Co., New Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

Wm. J. Smith Co., New Haven, Ct.

Standard Tool Co., Cleveland, O.

Wells Bros. Co., Greenfield, Mass.

Western Tool & Mfg. Co., Springfield, O.

Reamers, Belt—

Billings & Spencer Co., Hartford, Ct.

Reamers, Bit Stock Taper—

(See Reamers.)

Reamers, Bridge—

(See Reamers.)

Reamers, Expanding—

Morse Twist Drill & Machine Co., New Bedford, Mass.

Reamers, High Speed Steel—

Cleveland Twist Drill Co., Cleveland, O.

Lincoln-Williams Twist Drill Co., Taunton, Mass.

Reamers, Jobbers—

(See Reamers.)

Reamers, Locomotive—

(See Reamers.)

Reamers, Oil Feeding—

Cleveland Twist Drill Co., Cleveland, O.

Reamers, Pipe—

(See Taps and Reamers, Pipe.)

Reamers, Rose Chucking—

(See Reamers.)

Reamers, Rose Shell—

(See Reamers.)

Reamers, Taper Flange—

(See Reamers.)

Reamers, Three Groove—

(See Reamers.)

Reaming Machines—

(See Tapping and Reaming Machines.)

Reboring Engine Cylinders in Place—

John T. Lindstrom, Allentown, Pa.

Receivers, Air—

Bury Compressor Co., Erie, Pa.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Clayton Air Compressor Works, 114-118 Liberty St., New York.

Ingersoll-Rand Co., 11 Broadway, N. Y.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Petroleum Iron Works Co., Sharon, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Receivers, Gas—

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Reckoning Machines—

(See Adding, Computing and Reckoning Machines.)

Recorders, Cash Auto-graph—
Hough Cash Recorder Co., Indian Orchard, Mass.**Recorders, Steam, Speed—**

(See Indicators, Steam, Speed.)

Recorders, Time—

Howard Time Recorder Co., Boston, Mass.

Nanz Clock Co., 127 Duane St., N. Y.

Riggs & Bro., 310 Market St., Philadelphia, Pa.

Recording Instruments.**Temperature—**

Bristol Co., Waterbury, Ct.

Edward Brown & Son, 311 Walnut St., Philadelphia, Pa.

Reducers, Hose—

(See Hose Attachments.)

Reducing Rings, Valves—

(See Rings, Valves.)

Reducing Wire—

(See Wire Pointing, &c.)

Reels, Chalk Line—

W. R. Hartigan, Collinsville, Ct.

Stanley Rule & Level Co., New Britain, Ct.

Reels, Chalk Line, Auto-**matic—**

Cecil-Jones Co., Inc., Parkersburg, W. Va.

Reels, Cloth Line—

S. Cheney & Son, Manlius, N. Y.

John Sommer's Son, Newark, N. J.

Reels, Fishing—

Andrew B. Hendryx Co., New Haven, Ct.

John Sommer's Son, Newark, N. J.

Reels, Hose—

R. W. Whitehurst & Co., Norfolk, Va.

Reels, Sheet Metal—

Frank Mossberg Co., Attleboro, Mass.

- Reels, Wire, for Wire and Textile Machinery—**
 Blake & Johnson Co., Waterbury, Ct.
 Morgan Construction Co., Worcester, Mass.
 F. B. Shuster Co., New Haven, Ct.
 Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
 Wright Wire Co., Worcester, Mass.
- Reels, Wire Rod—**
 Morgan Construction Co., Worcester, Mass.
- Reels, Yarn—**
 Brown & Sharpe Mfg. Co., Providence, R. I.
- Refining Plants, Oil—**
 Petroleum Iron Works Co., Sharon, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
- Reflectors, Lamp—**
 Otto Konigsloew Mfg. Co., Cleveland, O.
- Refrigerating Machinery—**
 Bernard Gloeckler Co., Pittsburgh, Pa.
 Vilter Mfg. Co., Milwaukee, Wis.
- Refrigerator Catches, Latches—**
 (See Catches, Latches.)
- Refrigerators and Ice Chests—**
 Bernard Gloeckler Co., Pittsburgh, Pa.
 Maine Mfg. Co., Nashua, N. H.
 Simmons Hardware Co., St. Louis, Mo.
- Registers and Ceiling Plates, Stove Pipe—**
 Arcade Mfg. Co., Freeport, Ill.
 Novelty Iron Works, Sterling, Ill.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Registers and Ventilators—**
 S. Cheney & Son, Manlius, N. Y.
- Registers, Distance—**
 Veder Mfg. Co., Hartford, Ct.
- Registers, Faces and Borders—**
 Buffalo Wire Works Co., Buffalo, N. Y.
 Hart & Cooley Co., New Britain, Ct.
 Hess-Snyder Co., Massillon, O.
 Otto Konigsloew Mfg. Co., Cleveland, O.
 Novelty Iron Works, Sterling, Ill.
- Registers, Hand Tally—**
 W. N. Durant Co., Milwaukee, Wis.
 K. Woodman Mfg. & Supply Co., Boston.
- Registers, Damper—**
 Julian D'Este Co., Boston, Mass.
 Mason Regulator Co., Boston, Mass.
 Walworth Mfg. Co., Boston, Mass.
- Regulators, Exhaust Pressure—**
 Lunkenheimer Co., Cincinnati, O.
- Regulators, Feed Water—**
 Crosby Steam Gate & Valve Co., Boston.
 Walworth Mfg. Co., Boston, Mass.
- Regulators, Pump, Pressure—**
 Julian D'Este Co., Boston, Mass.
 John H. McGowan Co., Cincinnati, O.
 Mason Regulator Co., Boston, Mass.
- Regulators, Temperature—**
 Julian D'Este Co., Boston, Mass.
- Regulators, Upholsterers'—**
 Tuck Mfg. Co., Brockton, Mass.
- Regulators, Water Pressure—**
 Julian D'Este Co., Boston, Mass.
- Regulators, Wind Mill—**
 F. E. Myers & Bro., Ashland, O.
- Reheaters, Compressed Air—**
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 Ingersoll-Rand Co., 11 Broadway, N. Y.
- Reinforced Concrete—**
 American Steel & Wire Co., The Rookery, Chicago, Ill.
- Reloading Cartridge Tools—**
 (See Tools, Reloading, Cartridge.)
- Removers, Paint and Varnish—**
 (See Varnish and Paint Removers.)
- Repair Kits, Cobblers'—**
 (See Cobblers' Kits.)
- Repair Links—**
 (See Links, Repair.)
- Repair Materials, Iron Casting—**
 Shelton Metallic Filler Co., Derby, Ct.
 Smooth-On Mfg. Co., Jersey City, N. J.
- Re-Sawing Machinery—**
 Wickes Bros., Saginaw, Mich.
- Reservoirs, Oil—**
 Erie Stamping & Mfg. Co., Erie, Pa.
 R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.
- Reservoirs, Seamless Drawn Steel for Air Brakes—**
 Pressed Steel Tank Co., Milwaukee, Wis.
- Resistance Wire—**
 (See Wires, Electrical.)
- Rests, Ball Turning—**
 American Tool & Machine Co., Boston, Mass.
- Rests, Foot, Shoe Blacking—**
 Chicago Spring Butt Co., Chicago, Ill.
 Columbia Grey Iron Co., Columbia, Pa.
 Reading Hardware Co., Reading, Pa.
 Louis Sacks, Newark, N. J.
- Rests, Meat, Wire—**
 (See Household Articles, Wire.)
- Rests, Shelf—**
 (See Pins, Shelf.)
- Rests, Shirt, Wire—**
 (See Household Articles, Wire.)
- Rests, Slide—**
 American Tool & Machine Co., Boston, Mass.
 J. C. Blount Co., Everett, Mass.
- Rests, Stove Leg—**
 Fanner Mfg. Co., Cleveland, O.
- Retinning—**
 Avery Stamping Co., Cleveland, O.
- Retorts, Clay, Gas—**
 Cyrus Borgner, 23d St., above Race, Philadelphia, Pa.
 Harbison-Walker Refractories Co., Pittsburgh, Pa.
 Henry Maurer & Son, 42 East 23d St., New York.
- Retorts, Crucible Co., Waterbury, Ct.**
- Retorts, Dentists', Chemists', Physicians', &c.—**
 Stuart & Peterson Co., Burlington, N. J.
- Retorts, Iron—**
 Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.
- Revolution Counters—**
 (See Counters, Revolution.)
- Revolvers—**
 (See Pistols and Revolvers.)
- Rheostat Cable—**
 (See Wires, Electrical.)
- Rheostats—**
 Electric Controller & Supply Co., Cleveland, O.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
 Manning, Maxwell & Moore, Inc., 85 Liberty St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

Riveters, Portable—

Chester B. Albrece Iron Works Co., Allegheny, Pa.
 Alliance Machine Co., Alliance, O.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Chambersburg Engineering Co., Chambersburg, Pa.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Morgan Engineering Co., Alliance, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

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 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Wickes Bros., Saginaw, Mich.

Riveters, Steam—

Chester B. Albrece Iron Works Co., Allegheny, Pa.
 Alliance Machine Co., Alliance, O.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Morgan Engineering Co., Alliance, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.

Riveting Burrs—

(See Burrs, Steel.)

Riveting Machinery—

Adriance Machine Works, Brooklyn, N. Y.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
 E. W. Bliss Co., Brooklyn, N. Y.
 Buffalo Forge Co., Buffalo, N. Y.
 Chambersburg Engineering Co., Chambersburg, Pa.
 Cleveland Punch & Shear Works Co., Cleveland, O.
 Consolidated Press & Tool Co., Hastings, Mich.
 Ferracute Machine Co., Bridgeton, N. J.
 Garvin Machine Co., Spring & Varick Sts., New York.
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Grant Mfg. & Machine Co., Bridgeport Ct.
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 Hilles & Jones Co., Wilmington, Del.
 Harvey Hubbell, Bridgeport, Ct.
 Long & Allstatter Co., Hamilton, O.
 Morgan Engineering Co., Alliance, O.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Oster Co., New Haven, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.
 Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.
 Fred J. Swaine Co., St. Louis, Mo.
 Watson-Stillman Co., 26 Cortlandt St., New York.
 Williams, White & Co., Moline, Ill.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Manning, Maxwell & Moore, Inc., 85 Liberty St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
 Wickes Bros., Saginaw, Mich.

Rivets, Aluminum—

John Hassall, Brooklyn, N. Y.
 E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets and Burrs, Copper—

Blake & Johnson Co., Waterbury, Ct.
 Bridgeport Brass Co., 233 B'way, N. Y.
 U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.
 Plume & Atwood Mfg. Co., Waterbury, Ct.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 C. C. & E. P. Townsend Co., New Brighton, Pa.
 Waterbury Brass Co., Waterbury, Ct.

Rivets, Automobile Tire—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Belt—

(See Rivets, Bifurcated.)

Rivets, Bifurcated—

Crescent Belt Fastener Co., Inc., 143 E. 23d St., New York.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 Blake & Johnson Co., Waterbury, Ct.
 Fort Pitt Forge Co., Pittsburgh, Pa.
 U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Rivets, Boiler and Structural—

American Bridge Co. of New York, 42 Broadway, New York.
 American Iron & Steel Mfg. Co., Lebanon, Pa.
 Atlas Car & Mfg. Co., Cleveland, O.
 Baltimore Bridge Co., Baltimore, Md.
 Belmont Iron Works, Inc., Philadelphia, Pa.
 Bethlehem Steel Co., South Bethlehem, Pa.
 Burden Iron Co., Troy, N. Y.
 Forest City Steel & Iron Co., Cleveland, O.
 Fort Pitt Forge Co., Pittsburgh, Pa.
 Jones & Laughlin Steel Co., Pittsburgh, Pa.
 M. Lanz & Sons, Pittsburgh, Pa.
 New Castle Forge & Bolt Co., New Castle, Pa.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 Republic Iron & Steel Co., Pittsburgh, Pa.
 Upson Nut Co., Cleveland, O.
 Blake & Johnson Co., Waterbury, Ct.
 Cobb & Drew, Inc., Plymouth, Mass.
 Grand Crossing Tack Co., Grand Crossing, Ill.
 John Hassall, Brooklyn, N. Y.

U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.
Arthur T. Rutter & Co., 256 Broadway,
New York.
E. B. Stimpson Co., 31 Spruce St., N. Y.
C. C. & E. P. Townsend Co., New Brighton,
Pa.

Rivets, Braziers—

Blake & Johnson Co., Waterbury, Ct.
U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.
Plume & Atwood Mfg. Co., Waterbury, Ct.
Scovill Mfg. Co., Waterbury, Ct.

Rivets, Clinch—

Grand Crossing Tack Co., Grand Crossing,
Ill.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Coopers—

(See Rivets, Iron, Small Miscellaneous.)

Rivets, Copper—

(See Rivets and Burrs, Copper.)

Rivets, Coppersmiths—

Blake & Johnson Co., Waterbury, Ct.
U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.
Waterbury Brass Co., Waterbury, Ct.

Rivets, Galvanized—

Garland Nut & Rivet Co., Pittsburgh, Pa.
Thomas Laughlin Co., Portland, Me.
E. B. Stimpson Co., 31 Spruce St., N. Y.
C. C. & E. P. Townsend Co., New Brighton,
Pa.
Wilcox, Crittenden & Co., Inc., Middle-
town, Ct.

Rivets, German Silver—

John Hassall, Brooklyn, N. Y.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Hinge—

Blake & Johnson Co., Waterbury, Ct.
Garland Nut & Rivet Co., Pittsburgh, Pa.
Grand Crossing Tack Co., Grand Crossing,
Ill.

E. B. Stimpson Co., 31 Spruce St., N. Y.
C. C. & E. P. Townsend Co., New Brighton,
Pa.

Rivets, Iron, Small Miscellaneous—

American Iron & Steel Mfg. Co., Lebanon,
Pa.
American Rivet Co., New Haven, Ct.
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Bethlehem Steel Co., So. Bethlehem, Pa.
Clark Bros. Bolt Co., Milldale, Ct.
Cobb & Drew, Inc., Plymouth, Mass.
Falls Rivet & Machine Co., Cuyahoga
Falls, O.

Garland Nut & Rivet Co., Pittsburgh, Pa.
Grand Crossing Tack Co., Grand Crossing,
Ill.

John Hassall, Brooklyn, N. Y.
R. C. Jenkinson & Co., Newark, N. J.

Kirk-Latty Mfg. Co., Cleveland, O.
Milwaukee Tack Co., Milwaukee, Wis.

Ohio Nut & Bolt Co., Berea, O.
Russell, Burdall & Ward Bolt & Nut
Co., Portchester, N. Y.

J. H. Sessions & Son, Bristol, Ct.
E. B. Stimpson Co., 31 Spruce St., N. Y.

C. C. & E. P. Townsend Co., New Brighton,
Pa.

Upson Nut Co., Cleveland, O.

Rivets, Oyster Tong—

W. & J. Tiebout, 118 Chambers St., N. Y.

Rivets, Platinum—

Baker & Co., Inc., Newark, N. J.

J. Bishop & Co., Malvern, Pa.

Rivets, Sheet Iron—

(See Rivets, Iron, Small Miscellaneous.)

Rivets, Ship—

Fort Pitt Forge Co., Pittsburgh, Pa.

Rivets, Small Bright, to

Order—
Blake & Johnson Co., Waterbury, Ct.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Tank—

(See Rivets, Iron, Small Miscellaneous.)

Rivets, Tinned—

E. B. Stimpson Co., 31 Spruce St., N. Y.
Wilcox, Crittenden & Co., Inc., Middle-
town, Ct.

Rivets, Tinnerns—

(See Rivets, Iron, Small Miscellaneous.)

Rivets, Tubular—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Wagon—

(See Rivets, Iron, Small Miscellaneous.)

Road Rollers, Scrapers—

(See Rollers, Scrapers.)

Roasters, Coffee—

Griswold Mfg. Co., Erie, Pa.
Stuart & Peterson Co., Burlington, N. J.

Roasters, Peanut—

Stuart & Peterson Co., Burlington, N. J.

Rock Face Stone—

(See Ceiling and Siding, Iron and Steel.)

Rocker Springs—

(See Springs, Rocker.)

Rockers, Meat—

Bernard Gloekler Co., Pittsburgh, Pa.

Rod Cutters, Headers—

(See Cutters, Headers.)

Rod Ends—

Billings & Spencer Co., Hartford, Ct.

Rod Mill Machinery—

Morgan Construction Co., Worcester,
Mass.

Philadelphia Roll & Machine Co., 23d St.
& Washington Ave., Philadelphia, Pa.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Rod Reels, Wire—

(See Reels, Wire Rod.)

Rod Tapering Mills—

(See Mills, Rod Tapering.)

Rods, Aluminum—

Scoville Mfg. Co., Waterbury, Ct.

Rods, Anchor, Bridge, &c.—

M. Lanz & Son, Pittsburgh, Pa.

Rods, Awning—

Forest City Steel & Iron Co., Cleve-
land, O.

Rods, Bessemer Coppered—

American Steel & Wire Co., The Rookery,
Chicago, Ill.

Philadelphia Steel & Wire Co., 525 Com-
merce St., Philadelphia, Pa.

Rods, Black Steel—

Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.

Rods, Brass, Copper—

(See Brass and Copper Rods.)

Rods, Bronze—

Charles H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.
Phosphor-Bronze Smelting Co., 3200 Wash-
ington Ave., Philadelphia, Pa.

Plume & Atwood Mfg. Co., Waterbury, Ct.
Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway,
New York.

Scoville Mfg. Co., Waterbury, Ct.

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Baird Machinery Co., Pittsburg, Pa.
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Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

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Riveters, Portable—
Chester B. Albrete Iron Works Co., Allegheny, Pa.

Alliance Machine Co., Alliance, O.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Chambersburg Engineering Co., Chambersburg, Pa.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

General Pneumatic Tool Co., Montour Falls, N. Y.

Morgan Engineering Co., Alliance, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

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Wickes Bros., Saginaw, Mich.

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General Pneumatic Tool Co., Montour Falls, N. Y.

Morgan Engineering Co., Alliance, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Riveting Burrs—
(See Burrs, Steel.)

Riveting Machinery—

Adriance Machine Works, Brooklyn, N. Y.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

F. W. Bliss Co., Brooklyn, N. Y.

Buffalo Forge Co., Buffalo, N. Y.

Chambersburg Engineering Co., Chambersburg, Pa.

Cleveland Punch & Shear Works Co., Cleveland, O.

Consolidated Press & Tool Co., Hastings, O.

Ferracute Machine Co., Bridgeton, N. J.

Garvin Machine Co., Spring & Varick Sts., New York.

General Pneumatic Tool Co., Montour Falls, N. Y.

Grant Mfg. & Machine Co., Bridgeport, Ct.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Hilles & Jones Co., Wilmington, Del.

Harver Hubbell, Bridgeport, Ct.

Long & Allstatter Co., Hamilton, O.

Morgan Engineering Co., Alliance, O.

New Doty Mfg. Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo, Niles-Bement-Pond Co., 111 Broadway, New York.

F. B. Shuster Co., New Haven, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Fred J. Swaine Co., St. Louis, Mo.

Watson-Stillman Co., 26 Cortlandt St., New York.

Williams, White & Co., Moline, Ill.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

MERCHANTS.

Manning, Maxwell & Moore, Inc., 85 Liberty St., New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Rivets, Aluminum—
John Hassall, Brooklyn, N. Y.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets and Burrs, Copper—
Blake & Johnson Co., Waterbury, Ct.

Bridgeport Brass Co., 233 E'way, N. Y.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Plume & Atwood Mfg. Co., Waterbury, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

C. C. & E. P. Townsend Co., New Brighton, Pa.

Waterbury Brass Co., Waterbury, Ct.

Rivets, Automobile Tire—
E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Belt—
(See Rivets, Bifurcated.)

Rivets, Bifurcated—
Crescent Belt Fastener Co., Inc., 143 E. 23d St., New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Boat—
Blake & Johnson Co., Waterbury, Ct.

Fort Pitt Forge Co., Pittsburgh, Pa.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Rivets, Boiler and Structural—

American Bridge Co. of New York, 42 Broadway, New York.

American Iron & Steel Mfg. Co., Lebanon, Pa.

Atlas Car & Mfg. Co., Cleveland, O.

Baltimore Bridge Co., Baltimore, Md.

Belmont Iron Works, Inc., Philadelphia, Pa.

Bethlehem Steel Co., South Bethlehem, Pa.

Burden Iron Co., Troy, N. Y.

Forest City Steel & Iron Co., Cleveland, O.

Fort Pitt Forge Co., Pittsburgh, Pa.

Jones & Laughlin Steel Co., Pittsburgh, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

New Castle Forge & Bolt Co., New Castle, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

Upson Nut Co., Cleveland, O.

Rivets, Brass—
Blake & Johnson Co., Waterbury, Ct.

Cobb & Drew, Inc., Plymouth, Mass.

Grand Crossing Tack Co., Grand Crossing, Ill.

John Hassall, Brooklyn, N. Y.

U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.
Arthur T. Rutter & Co., 256 Broadway,
New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.
C. C. & E. P. Townsend Co., New Brighton,
Pa.

Rivets, Brassiers'—
Blake & Johnson Co., Waterbury, Ct.
U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Plume & Atwood Mfg. Co., Waterbury, Ct.
Scovill Mfg. Co., Waterbury, Ct.

Rivets, Clinch—
Grand Crossing Tack Co., Grand Crossing,
Ill.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Coopers'—
(See Rivets, Iron, Small Miscellaneous.)

Rivets, Copper—
(See Rivets and Burrs, Copper.)

Rivets, Coppersmiths'—
Blake & Johnson Co., Waterbury, Ct.

U. T. Hungerford Brass & Copper Co.,
497-505 Pearl St., New York.

Waterbury Brass Co., Waterbury, Ct.

Rivets, Galvanized—
Garland Nut & Rivet Co., Pittsburgh, Pa.

Thomas Laughlin Co., Portland, Me.

E. B. Stimpson Co., 31 Spruce St., N. Y.

C. C. & E. P. Townsend Co., New Brighton,
Pa.

Wilcox, Crittenden & Co., Inc., Middle-
town, Ct.

Rivets, German Silver—
John Hassall, Brooklyn, N. Y.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Hinge—
Blake & Johnson Co., Waterbury, Ct.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Grand Crossing Tack Co., Grand Crossing,
Ill.

E. B. Stimpson Co., 31 Spruce St., N. Y.

C. C. & E. P. Townsend Co., New Brighton,
Pa.

Rivets, Iron, Small Miscellaneous—
American Iron & Steel Mfg. Co., Leba-
non, Pa.

American Rivet Co., New Haven, Ct.

American Screw Co., Providence, R. I.

Atlas Bolt & Screw Co., Cleveland, O.

Bethlehem Steel Co., So. Bethlehem, Pa.

Clark Bros. Bolt Co., Middale, Ct.

Cobb & Drew, Inc., Plymouth, Mass.

Falls Rivet & Machine Co., Cuyahoga
Falls, O.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Grand Crossing Tack Co., Grand Crossing,
Ill.

John Hassall, Brooklyn, N. Y.

R. C. Jenkinson & Co., Newark, N. J.

Kirk-Latty Mfg. Co., Cleveland, O.

Milwaukee Tack Co., Milwaukee, Wis.

Ohio Nut & Bolt Co., Berea, O.

Russell, Burdiss & Ward Bolt & Nut
Co., Fortchester, N. Y.

J. H. Sessions & Son, Bristol, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

C. C. & E. P. Townsend Co., New Brighton,
Pa.

Upson Nut Co., Cleveland, O.

Rivets, Oyster Tong—
W. & J. Tiebout, 118 Chambers St., N. Y.

Rivets, Platinum—
Baker & Co., Inc., Newark, N. J.

J. Bishop & Co., Malvern, Pa.

Rivets, Sheet Iron—
(See Rivets, Iron, Small Miscellaneous.)

Rivets, Ship—
Fort Pitt Forge Co., Pittsburgh, Pa.

**Rivets, Small Bright, to
Order—**

Blake & Johnson Co., Waterbury, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Tank—
(See Rivets, Iron, Small Miscellaneous.)

Rivets, Tinned—
E. B. Stimpson Co., 31 Spruce St., N. Y.

Wilcox, Crittenden & Co., Inc., Middle-
town, Ct.

Rivets, Tinner's'—
(See Rivets, Iron, Small Miscellaneous.)

Rivets, Tubular—
E. B. Stimpson Co., 31 Spruce St., N. Y.

Rivets, Wagon—
(See Rivets, Iron, Small Miscellaneous.)

Road Rollers, Scrapers—
(See Rollers, Scrapers.)

Roasters, Coffee—
Griswold Mfg. Co., Erie, Pa.

Stuart & Peterson Co., Burlington, N. J.

Roasters, Peanut—
Stuart & Peterson Co., Burlington, N. J.

Rock Face Stone—
(See Ceiling and Siding, Iron and Steel.)

Rocker Springs—
(See Springs, Rocker.)

Rockers, Meat—
Bernard Gloekler Co., Pittsburgh, Pa.

Rod Cutters, Headers—
(See Cutters, Headers.)

Rod Ends—
Billings & Spencer Co., Hartford, Ct.

Rod Mill Machinery—
Morgan Construction Co., Worcester,
Mass.

Philadelphia Roll & Machine Co., 23d St.
& Washington Ave., Philadelphia, Pa.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Rod Reels, Wire—
(See Reels, Wire Rod.)

Rod Tapering Mills—
(See Mills, Rod Tapering.)

Rods, Aluminum—
Scoville Mfg. Co., Waterbury, Ct.

Rods, Anchor, Bridge, &c.—
M. Lanz & Son, Pittsburgh, Pa.

Rods, Awning—
Forest City Steel & Iron Co., Cleve-
land, O.

Rods, Bessemer Coppered—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Philadelphia Steel & Wire Co., 525 Com-
merce St., Philadelphia, Pa.

Rods, Black Steel—
Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.

Rods, Brass, Copper—
(See Brass and Copper Rods.)

Rods, Bronze—
Charles H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Phosphor-Bronze Smelting Co., 3200 Wash-
ington Ave., Philadelphia, Pa.

Plume & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. Y.

Arthur T. Rutter & Co., 256 Broadway,
New York.

Scoville Mfg. Co., Waterbury, Ct.

Seymour Mfg. Co., Seymour, Ct.
Waterbury Brass Co., Waterbury, Ct.

Rods, Connecting—
Bancroft & Co., Philadelphia, Pa.
Columbus Forge & Iron Co., Columbus, O.
Erie Forge Co., Erie, Pa.
Portsmouth Forge, Portsmouth, N. H.
Thomas Prosser & Son, 26 Platt St., N. Y.
Richmond Forgings Corporation, Richmond, Va.

Sundberg, Kropp & Co., 1121-1131 W. 21st St., Chicago, Ill.
Tindel-Morris Co., Eddystone, Pa.
Titusville Forge Co., Titusville, Pa.

Rods, Coppered Steel—
Patriarche & Bell, 215 Pearl St., N. Y.

Rods, Curtain—
Ludlow-Saylor Wire Co., St. Louis, Mo.
Parker Wire Goods Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
Pullman Mfg. Co., Rochester, N. Y.
Spencer Wire Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

Rods, Dental Octagon—
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Rods, Dowel—
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Rods, Duct—
Diamond Expansion Bolt Co., 9-15 Murray St., New York.

Rods, Extension—
American Ring Co., Waterbury, Ct.
Turner & Stanton Co., Norwich, Ct.

Rods, Fishing—
Dame, Stoddard & Co., Boston, Mass.

Rods, Fishing, Steel—
Horton Mfg. Co., Bristol, Ct.
Union Hardware Company, Torrington, Ct.

Rods for Concrete Structures—
(See Bars for Concrete Structures.)

Rods, Gauging and Wantage, &c.—
Chapin-Stephens Co., Pine Meadow, Ct.
Stanley Rule & Level Co., New Britain, Ct.

Upson Nut Co., Cleveland, O.
Rods, German Silver—
Bridgeport Brass Co., 253 B'way, N. Y.

Riverside Metal Co., Riverside, N. J.
Arthur T. Rutter & Co., 256 Broadway, New York.

Scoville Mfg. Co., Waterbury, Ct.
Seymour Mfg. Co., Seymour, Ct.
Waterbury Brass Co., Waterbury, Ct.

Rods, Gun and Rifle Cleaning—
W. E. Hartigan, Collinsville, Ct.
Reversible Tube Cleaner Co., Worcester, Mass.

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Rods, Gun Screw—
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Rods, Guy—
American Iron & Steel Mfg. Co., Lebanon, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

Rods, High Speed Drill—
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Rods, Hitching Post—
(See Hitching Post Rods.)

Rods, Key—
Columbia Bridge Co., Pittsburgh, Pa.
Columbia Steel & Shafting Co., Pittsburgh, Pa.
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Rods, Leveling—
Keuffel & Esser Co., 127 Fulton St., N. Y.

Rods, Miter—
National Saw Co., Newark, N. J.

Rods, Nail and Rivet—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Rods, Nail Set—
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Rods, Parasol, Baby Carriage—
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Rods, Piston—
Bancroft & Co., Philadelphia, Pa.
Columbia Bridge Co., Pittsburgh, Pa.
Columbia Steel & Shafting Co., Pittsburgh, Pa.

Erie Forge Co., Erie, Pa.
Finished Steel Co., Youngstown, O.
U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

B. M. Jones & Co., Inc., Boston, Mass.
Jones & Laughlin Steel Co., Pittsburgh.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Portsmouth Forge, Portsmouth, N. H.
Thomas Prosser & Son, 26 Platt St., N. Y.

Rods, Polished Drill—
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Rods, Pump—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Columbia Bridge Co., Pittsburgh, Pa.
Columbia Steel & Shafting Co., Pittsburgh, Pa.

Finished Steel Co., Youngstown, O.
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Thomas Prosser & Son, 26 Platt St., N. Y.

Rods, Resistance, Electric—
Jos. Dixon Crucible Co., Jersey City.
Thomas Prosser & Son, 26 Platt St., N. Y.

Rods, Rivet—
Carnegie Steel Co., Pittsburgh, Pa.

Rods, Roller Bearing—
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Rods, Saw—
E. C. Atkins & Co., Indianapolis, Ind.
Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.
National Saw Co., Newark, N. J.

Charles Parker Co., Meriden, Ct.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Simonds Mfg. Co., Fitchburg, Mass.

Rods, Screw—
American Steel & Wire Co., The Rookery, Chicago, Ill.
Columbia Bridge Co., Pittsburgh, Pa.
Columbia Steel & Shafting Co., Pittsburgh, Pa.

Finished Steel Co., Youngstown, O.
Rods, Screw Driver Steel—
 Kidd Bros. & Burgher Steel Wire Co.,
 Aliquippa, Pa.

Rods, Seat—
 Kirk-Latty Mfg. Co., Cleveland, O.
Rods, Steel Drill—
 Hobson, Houghton & Co., Ltd., 21 Cliff
 St., New York.
 Kidd Bros. & Burgher Steel Wire Co.,
 Aliquippa, Pa.
 Pittsburgh Tool Steel Wire Co., Monaca,
 Pa.

**Rods, Stove, Range and
 Furnace—**
 American Screw Co., Providence, R. I.
 Atlas Bolt & Screw Co., Cleveland, O.
 Fanner Mfg. Co., Cleveland, O.
 Kirk-Latty Mfg. Co., Cleveland, O.
 Ohio Nut & Bolt Co., Berea, O.
 Philadelphia Steel & Wire Co., 525 Com-
 merce St., Philadelphia, Pa.
 Russell, Burdall & Ward Bolt & Nut
 Co., Port Chester, N. Y.

Rods, Tap and Reamer—
 Kidd Bros. & Burgher Steel Wire Co.,
 Aliquippa, Pa.

Rods, Tie—
 American Bridge Co. of New York, 42
 Broadway, New York.
 American Iron & Steel Mfg. Co., Leb-
 anon, Pa.
 Berlin Construction Co., Berlin, Ct.
 Eastern Bridge & Structural Co., Worces-
 ter, Mass.

Fort Pitt Forge Co., Pittsburgh, Pa.
 Graham Nut Co., Pittsburgh, Pa.
 Samuel Hall's Sons, 229-233 W. 10th St.,
 New York.
 W. N. Kratzer & Co., Pittsburgh, Pa.
 Matthew Lanz & Sons, Pittsburgh, Pa.
 New Castle Forge & Bolt Co., New Cas-
 tle, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.
Rods, Typewriter—
 Kidd Bros. & Burgher Steel Wire Co.,
 Aliquippa, Pa.

Rods, Upset—
 American Bridge Co. of New York, 42
 Broadway, New York.
 American Iron & Steel Mfg. Co., Leb-
 anon, Pa.
 Fort Pitt Forge Co., Pittsburgh, Pa.
 New Castle Forge & Bolt Co., New Castle,
 Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.
Rods, Ventilator—
 (See Ventilator, Controlling Rods.)

Rods, Wire—
 American Steel & Wire Co., The Rookery,
 Chicago, Ill.
 Columbia Bridge Co., Pittsburgh, Pa.
 Columbia Steel & Shafting Co., Pitts-
 burgh, Pa.
 Grand Crossing Tack Co., Grand Crossing,
 Ill.

Kidd Bros. & Burgher Steel Wire Co.,
 Aliquippa, Pa.
 Morgan Spring Co., Worcester, Mass.
 Pittsburgh Steel Co., Pittsburgh, Pa.
 S. & C. Wardlow, 95 John St., New York.
 Washburn Wire Co., Phillipsdale, R. I.
 Wickwire Bros., Cortland, N. Y.

**Roll Brass, Bronze, Cop-
 per—**
 (See Brass, Bronze, Copper.)
Roll Shells—
 (See Shells, Roll.)

Roll Shells, Crushing—
 Thomas Prosser & Son, 28 Platt St., N. Y.
 Taylor Iron & Steel Co., High Bridge,
 N. J.

Roll Turners' Tools—
 Heppenstall Forge & Knife Co., Pitts-
 burgh, Pa.

**Roller Bearings, Skates,
 Stays—**
 (See Bearings, Skates, Stays.)

Roller Bearing Steel—
 (See Steel, Roller Bearing.)

**Roller Leveling Machines
 for Sheets—**
 Bertsch & Co., Cambridge City, Ind.

Rollers, Bogie—
 Bethlehem Foundry & Machine Co.,
 South Bethlehem, Pa.

Rollers, Cast Iron Pipe—
 Grabler Mfg. Co., Cleveland, O.

Rollers, Caster—
 (See Wheels, Caster, Wooden.)

Rollers, Door—
 S. Cheney & Son, Manlius, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Reading Hardware Co., Reading, Pa.
Rollers, Flue, Pneumatic—
 Helwig Mfg. Co., St. Paul, Minn.

Rollers, Garden—
 R. W. Whitehurst Co., Norfolk, Va.

Rollers, Golf—
 (See Rollers, Lawn and Golf.)

Rollers, Land and Field—
 Cutaway Harrow Co., Higganum, Ct.
 Keystone Farm Machine Co., York, Pa.

R. W. Whitehurst Co., Norfolk, Va.
Rollers, Lawn and Golf—
 Cutaway Harrow Co., Higganum, Ct.

R. W. Whitehurst Co., Norfolk, Va.
Rollers, Paperhangers—
 Webster & Perks Tool Co., Springfield, O.

Rollers, Polo and Tennis—
 R. W. Whitehurst Co., Norfolk, Va.

Rollers, Road—
 Thos. Carlin's Sons, Allegheny, Pa.
 R. W. Whitehurst Co., Norfolk, Va.

Rollers, Sash—
 Ney Mfg. Co., Canton, O.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 94-98 Lafayette
 St., New York.

W. & J. Tiebout, 118 Chambers St., N. Y.
Rollers, Skate—
 (See Wheels, Roller Skate.)

Rollers, Snow—
 Pa's Rivet & Machine Co., Cuyahoga
 Falls, O.

Rollers, Stay—
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 Griffin Mfg. Co., Erie, Pa.

Lane Bros. Co., Poughkeepsie, N. Y.
 Lawrence Bros., Sterling, Ill.
 McKinney Mfg. Co., Canton, O.

F. E. Myers & Bro. Ashland, O.
 National Mfg. Co., Sterling, Ill.
 Ney Mfg. Co., Canton, O.

Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.
 Reading Hardware Co., Reading, Pa.

Rollers, Towel—
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.
Rollers, Trunk—
 J. H. Sessions & Son, Bristol, Ct.

Rolling Machinery, Hoe—

Birmingham Iron Foundry, Derby, Ct.
Rolling Mill Ganges—
 (See Ganges, Rolling Mill.)

Rolling Mill Machinery—

Alliance Machine Co., Alliance, O.
 Atlas Car & Mfg. Co., Cleveland, O.
 Bertsch & Co., Cambridge City, Ind.
 Birdsboro Steel Foundry & Machine Co.,
 Birdsboro, Pa.

Birmingham Iron Foundry, Derby, Ct.
 Blake & Johnson Co., Waterbury, Ct.
 Cincinnati Punch & Shear Co., Cincinnati, O.

Farrel Foundry & Machine Co., Ansonia, Ct.

Fawcett Machine Co., Pittsburgh, Pa.
 Hilles & Jones Co., Wilmington, Del.
 George A. Hoag Iron & Steel Foundry
 Co., Pittsburgh, Pa.

Lewis Foundry & Machine Co., Groveton, Pa.

J. Howard Lingle, Bellefonte, Pa.
 Mackintosh, Hemphill & Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.
 Morgan Construction Co., Worcester, Mass.

Morgan Engineering Co., Alliance, O.
 R. S. Newbold & Son Co., Norristown, Pa.

Niles-Bement-Pond Co., 111 Broadway, New York.

George A. Ohl & Co., Newark, N. J.
 Pennsylvania Engineering Works, New Castle, Pa.

Philadelphia Roll & Machine Co., 23d St., & Washington Ave., Philadelphia.

Foole Engineering & Machine Co., Baltimore, Md.

Thomas Prosser & Son, 26 Platt St., N.Y.

Walzmaschinenfabrik August Schmitz, Dusseldorf, Germany.

Standard Engineering Co., Elwood City, Pa.

United Engineering & Foundry Co., Pittsburgh, Pa.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Wellman-Seaver-Morgan Co., Cleveland, O.

Wheeling Mold & Foundry Co., Wheeling, W. Va.

MERCHANTS.

Barclay M. Everson, Pittsburgh, Pa.

Marshall & Husehart Machinery Co., 62 Canal St., Chicago, Ill.

Pfannmueller Engineering Co., First National Bank Bldg., Chicago, Ill.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Rolling Mill Machinery.**Brass and Copper—**

Birmingham Iron Foundry, Derby, Ct.

Blake & Johnson Co., Waterbury, Ct.

Farrel Foundry & Machine Co., Ansonia, Ct.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Thomas Prosser & Son, 26 Platt St., N.Y.

Walzmaschinenfabrik August Schmitz, Dusseldorf, Germany.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Rolling Mill Machinery.**Gold and Silver—**

Birmingham Iron Foundry, Derby, Ct.

Blake & Johnson Co., Waterbury, Ct.

Farrel Foundry & Machine Co., Ansonia, Ct.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

Thomas Prosser & Son, 26 Platt St., N.Y.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Rolling Mills, Lead—

Farrel Foundry & Machine Co., Ansonia, Ct.

Thomas Prosser & Son, 26 Platt St., N.Y.

Rolling Pins—

(See Pins, Rolling.)

Rolls, Beam Bending—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Rolls, Bending and Straightening—

Badger State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Bethlehem Steel Co., South Bethlehem, Pa.

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Thos. Carlin's Sons, Allegheny, Pa.

Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Erie Forge Co., Erie, Pa.

Hilles & Jones Co., Wilmington, Del.

Lewis Foundry & Machine Co., Groveton, Pa.

Morgan Engineering Co., Alliance, O.

New Doty Mfg. Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo, N.Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.

Portsmouth Forge, Portsmouth, N. H.

Titusville Forge Co., Titusville, Pa.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Williams, White & Co., Moline, Ill.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Marshall & Husehart Machinery Co., 62 Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

New York Machinery Depot, 120 Broadway, New York.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

Rolls, Coal Crushing—
 Interstate Engineering Co., Bedford, O.

Taylor Iron & Steel Co., High Bridge, N. J.

Rolls, Crimping, Metal-
Bertsch & Co., Cambridge City, Ind.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

E. W. Bliss Co., Brooklyn, N. Y.
Farracute Machine Co., Bridgeton, N. J.
New Doty Mfg. Co., Janesville, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.

Rolls, Crushing-
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Thos. Carlin's Sons, Allegheny, Pa.
Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
Farrel Foundry & Mach. Co., Ansonia, Ct.
Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.
Thomas Prosser & Son, 26 Platt St., N. Y.
Wellman-Seaver-Morgan Co., Cleveland, O.

Rolls, Forging-
Ajax Mfg. Co., Cleveland, O.
Kilborn & Bishop Co., New Haven, Ct.
Thomas Prosser & Son, 26 Platt St., N. Y.
Williams, White & Co., Moline, Ill.

Rolls, Hand and Belt

Power, Bending-
Badger State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Cincinnati Punch & Shear Co., Cincinnati, O.

Hilles & Jones Co., Wilmington, Del.
New Doty Mfg. Co., Janesville, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

George A. Ohl & Co., Newark, N. J.
Locks Bros., Saginaw, Mich.

Rolls, Hardened Cast Steel-
Walzmaschinenfabrik August Schmitz, Dusseldorf, Germany.

Rolls, Hardened Forged Steel-

Blake & Johnson Co., Waterbury, Ct.
F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
Thomas Prosser & Son, 26 Platt St., N. Y.

Rolls, Jewelers'-
Blake & Johnson Co., Waterbury, Ct.
E. J. Manville Mach. Co., Waterbury, Ct.
Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia, Pa.
Thomas Prosser & Son, 26 Platt St., N. Y.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Rolls, Ornamental-
Walzmaschinenfabrik August Schmitz, Dusseldorf, Germany.

Rolls, Paper-
Farrel Foundry & Mach. Co., Ansonia, Ct.
Rolls, Rubber Covered-
Geo. P. Clark Co., Windsor Locks, Ct.
New York Belting & Packing Co., 91-93 Chambers St., New York.

Rolls, Sand, Chilled and Steel-

Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
Birmingham Iron Foundry, Derby, Ct.

Blake & Johnson Co., Waterbury, Ct.
Farrel Foundry & Mach. Co., Ansonia, Ct.
George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.

Lewis Foundry & Machine Co., Groveton, Pa.

Mesta Machine Co., Pittsburgh, Pa.
Philadelphia Roll & Machine Co., 23d St. and Washington Ave., Philadelphia.
Thomas Prosser & Son, 26 Platt St., N. Y.
Seaman-Sleeth Co., Pittsburgh, Pa.
Standard Engineering Co., Ellwood City, Pa.

Tindel-Morris Co., Eddystone, Pa.
United Engineering & Foundry Co., Pittsburgh, Pa.
Wheeling Mold & Foundry Co., Wheeling, W. Va.

Rolls, Skate-
(See Wheels, Roller Skate.)
Roof Bolts, Rods-
(See Bolts, Rods.)

Roofing, Asbestos-
Asbestos Protected Metal Co., Canton, Mass.

National Roofing Co., Tonawanda, N. Y.
Roofing, Asphalt-
Asphalt Ready Roofing Co., 136 Water St., New York.

National Roofing Co., Tonawanda, N. Y.
Stowell Mfg. Co., Jersey City, N. J.
(See Also Felts.)

Roofing, Asphalt Cork-
Stowell Mfg. Co., Jersey City, N. J.
Roofing, Asphalt, Stone Covered-

Asphalt Ready Roofing Co., 136 Water St., New York.

Stowell Mfg. Co., Jersey City, N. J.
Roofing Brackets, Tongs-
(See Brackets, Tongs.)

Roofing, Cement-
Asphalt Ready Roofing Co., 136 Water St., New York.

Brown Hoisting Machinery Co., Cleveland, O.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Roofing, Doubled Refined Puddled Iron-

Empire Iron & Steel Co., Niles, O.
Youngstown Sheet & Tube Co., Youngstown, O.

Roofing, Feldspar-
National Roofing Co., Tonawanda, N. Y.

Roofing, Fire Proof-
Asbestos Protected Metal Co., Canton, Mass.

Roofing, Gravel Surfaced-
National Roofing Co., Tonawanda, N. Y.

Roofing in Rolls-
American Sheet and Tin Plate Co., Pittsburgh, Pa.

Empire Iron & Steel Co., Niles, O.
Globe Iron Roofing & Corrugating Co., Cincinnati, O.

Newport Rolling Mill Co., Newport, Ky.
Niles Corrugating Co., Niles, O.
Youngstown Sheet & Tube Co., Youngstown, O.

Roofing, Iron and Steel-
American Bridge Co. of New York, 42 Broadway, New York.

Roston Bridge Works, Boston, Mass.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Eller Mfg. Co., Canton, O.
 Empire Iron & Steel Co., Niles, O.
 Follansbee Bros. Co., Pittsburgh, Pa.
 Forest City Steel & Iron Co., Cleveland, O.
 Globe Iron Roofing & Corrugating Co., Cincinnati, O.
 Hirsch Rolling Mill Co., St. Louis, Mo.
 Inland Steel Co., First National Bank Bldg., Chicago, Ill.
 McCullough Iron Co., Wilmington, Del.
 Newport Rolling Mill Co., Newport, Ky.
 Niles Corrugating Co., Niles, O.
 Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
 Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
 Youngstown Iron & Steel Roofing Co., Youngstown, O.
 Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
 Follansbee Bros. Co., Pittsburgh, Pa.
 Arthur C. Harvey Co., Boston, Mass.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
 Walter A. Zelnicker Supply Co., St. Louis, Mo.

Roofing Metal—

(See Corrugated Iron.)

Roofing Plates—

(See Sheets, Roofing.)

Roofing Prepared—

Asphalt Ready Roofing Co., 136 Water St., New York.

National Roofing Co., Tonawanda, N. Y.

Stowell Mfg. Co., Jersey City, N. J.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

Roofing, Sand Surfaced—

Asphalt Ready Roofing Co., 136 Water St., New York.

National Roofing Co., Tonawanda, N. Y.

Roofing Tin—

(See Plate, Tin and Terns.)

Roofs—

(See Buildings and Bridges.)

Root, Tobacco, Cutters—

(See Cutters, Tobacco Root.)

Rope, Bale—

American Mfg. Co., 65 Wall St., N. Y.

New York Cordage Co., 83-85 Wall St., N. Y.

Plymouth Cordage Co., North Plymouth, Mass.

Waterbury Co., 69 South St., New York.

Rope, Braided Cotton.

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

Samson Cordage Works, Boston, Mass.

Silver Lake Co., Boston, Mass.

Rope Clamps, Clips, &c.—

(See Clamps, Clips, &c.)

Rope Coating Filler—

(See Coating, Filler.)

Rope, Crucible Steel—

A. Leschen & Sons Rope Co., St. Louis, Mo.

Waterbury Co., 69 South St., New York.

Rope, Hay—

American Mfg. Co., 65 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

New York Cordage Co., 83-85 Wall St., New York.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Plymouth Cordage Co., North Plymouth, Mass.

Waterbury Co., 69 South St., New York.

Rope, Hemp, Tarred—

American Mfg. Co., 65 Wall St., N. Y.

New York Cordage Co., 83-85 Wall St., New York.

Plymouth Cordage Co., North Plymouth, Mass.

Rope, Hide—

American Mfg. Co., 65 Wall St., N. Y.

New York Cordage Co., 83-85 Wall St., New York.

Plymouth Cordage Co., North Plymouth, Mass.

Waterbury Co., 69 South St., New York.

American Mfg. Co., 65 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis.

Hazard Mfg. Co., Wilkes-Barre, Pa.

A. Leschen & Sons Rope Co., St. Louis.

New York Cordage Co., 83-85 Wall St., New York.

Plymouth Cordage Co., North Plymouth, Mass.

Samson Cordage Works, Boston, Mass.

Waterbury Co., 69 South St., N. Y.

Rope, Hoisting, Phosphor—

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Rope, Lariat—

American Mfg. Co., 65 Wall St., N. Y.

A. Leschen & Sons Rope Co., St. Louis.

Plymouth Cordage Co., North Plymouth, Mass.

Samson Cordage Works, Boston, Mass.

Rope, Manila, Sisal, Jute and Hemp—

American Mfg. Co., 65 Wall St., N. Y.

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

New York Cordage Co., 83-85 Wall St., New York.

Plymouth Cordage Co., North Plymouth, Mass.

Waterbury Co., 69 South St., New York.

Rope, Tiller—

Samson Cordage Works, Boston, Mass.

Rope, Tiller, Phosphor—

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Rope Transmission—

American Mfg. Co., 65 Wall St., N. Y.

American Steel & Wire Co., The Bookery, Chicago, Ill.

Broderick & Bascom Rope Co., St. Louis.

A. Leschen & Sons Rope Co., St. Louis.

New York Cordage Co., 83-85 Wall St., New York.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Plymouth Cordage Co., North Plymouth, Mass.

Samson Cordage Works, Boston, Mass.

Waterbury Co., 69 South St., N. Y.

Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.

Rope, Wire—

American Steel & Wire Co., The Bookery, Chicago, Ill.

Broderick & Bascom Rope Co., St. Louis.
Hazard Mfg. Co., Wilkesbarre, Pa.
A. Leschen & Sons Rope Co., St. Louis.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.
Philadelphia Steel & Wire Co., 525 Com-
merce St., Philadelphia, Pa.
Phosphor Bronze Smelting Co., Ltd.,
2200 Washington Ave., Philadelphia.
Waterbury Co., 69 South St., N. Y.
Williamsport Wire Rope Co., Williams-
port, Pa.

Rope, Yacht—
American Mfg. Co., 65 Wall St., N. Y.
A. Leschen & Sons Rope Co., St. Louis,
Mo.
Plymouth Cordage Co., North Plymouth,
Mass.

**Ropes, Hammock and Hitch-
ing—**
American Mfg. Co., 65 Wall St., N. Y.
Covert Mfg. Co., Troy, N. Y.
New York Cordage Co., 83-85 Wall St.,
New York.

I. E. Palm, Middletown, Ct.
Samson Cordage Works, Boston, Mass.
Steel Basket Co., Cedar Rapids, Ia.

**Ropes, Locomotive Switch-
ing—**
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Broderick & Bascom Rope Co., St. Louis.
A. Leschen & Sons Rope Co., St. Louis.
Waterbury Co., 69 South St., New York.
Williamsport Wire Rope Co., Williams-
port, Pa.

Ropeways, Wire—
(See Tramways, Wire Rope.)
Rosettes—
(See Architectural Sheet Metal Work.)

Rosettes, Harness—
American Rivet Co., New Haven, Ct.
Rosettes, Iron—
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

Keystone Drop Forge Works, Chester, Pa.
Rounders, Saw—
(See Saws, Guides and Rounders.)

Rowlocks—
Thomas Laughlin Co., Portland, Me.
W. & J. Tiebout, 118 Chambers St., N. Y.
Wilcox, Crittenden & Co., Inc., Middle-
town, Ct.

Rub Irons— (See Irons, Rub.)
**Rubber and Paper Insulated
Wire—** (See Wires, Electrical.)
Rubber Belting, Cement, &c—
(See Belting, Cement, &c.)

Rubber Covered Wire—
(See Wires, Electrical.)

Rubber Goods, Mechanical—
H. O. Canfield Co., Bridgeport, Ct.
New York Belting & Packing Co., 91-93
Chambers St., New York.
Springfield Tire & Rubber Co., Spring-
field, O.

Rubber Mill Machinery—
American Tool & Machine Co., Boston,
Mass.
Birmingham Iron Foundry, Derby, Ct.
Farrel Fdy. & Mach. Co., Ansonia, Ct.
Philadelphia Roll & Machine Co., 23d St.
and Washington Ave., Philadelphia, Pa.
Thomas Prosser & Son, 26 Platt St., N. Y.

**Rubber Reclaiming Ma-
chines—**
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Rubber Rings—
(See Gaskets and Rings, Rubber.)
Rubber Scrapers—
(See Cleaners, Bar, Floor, Window.)
Rubber Sheets, Vulcanized—
(See Sheet Rubber, Vulcanized.)
Rubber Springs—
(See Bumpers and Springs.)
**Rubber Washing Machin-
ery—**
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Rubbers, Window—
(See Cleaners, Window.)

Rubbing Beds—
Birmingham Iron Foundry, Derby, Ct.
Rubs, Emery—
(See Emery Rubs for Foundry Use.)
Rudder Braces—
(See Braces, Rudder.)

Rulers, Desk and School—
Chapin-Stephens Co., Pine Meadow, Ct.
Lufkin Rule Co., Saginaw, Mich.
L. S. Starrett Co., Athol, Mass.
Upson Nut Co., Cleveland, O.

Rules, Blacksmiths—
Lufkin Rule Co., Saginaw, Mich.
L. S. Starrett Co., Athol, Mass.
Rules, Board and Log—
Chapin-Stephens Co., Pine Meadow, Ct.
Lufkin Rule Co., Saginaw, Mich.

Rules, Boxwood—
Brown & Sharpe Mfg. Co., Providence, R. I.
Chapin-Stephens Co., Pine Meadow, Ct.
Keuffel & Esser Co., 127 Fulton St., N. Y.
Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.
Stanley Rule & Level Co., New Britain,
Ct.

Upson Nut Co., Cleveland, O.
Rules, Combination—
Chapin-Stephens Co., Pine Meadow, Ct.
Keuffel & Esser Co., 127 Fulton St., N. Y.

Rules, Draughtsmen's—
L. S. Starrett Co., Athol, Mass.
Rules, Flexible Folding—
Chapin-Stephens Co., Pine Meadow, Ct.
Schuchardt & Schutte, 136 Liberty St.,
New York.

Stanley Rule & Level Co., New Britain,
Ct.
L. S. Starrett Co., Athol, Mass.

Rules, Glaziers—
Lufkin Rule Co., Saginaw, Mich.

Rules, Hook—
Brown & Sharpe Mfg. Co., Providence,
R. I.
L. S. Starrett Co., Athol, Mass.

Rules, Ivory—
Chapin-Stephens Co., Pine Meadow, Ct.
Schuchardt & Schutte, 136 Liberty St.,
New York.
Stanley Rule & Level Co., New Britain,
Ct.

Upson Nut Co., Cleveland, O.
Rules, Keyseat—
Brown & Sharpe Mfg. Co., Providence,
R. I.
L. S. Starrett Co., Athol, Mass.

Rules, Log, Caliper—
Humphrey Machine Co., Keene, N. H.

Rules, Machinists—

Brown & Sharpe Mfg. Co., Providence, R. I.
Henry Disston & Sons, Philadelphia, Pa.
C. E. Jennings & Co., 42 Murray St.,
New York.

Lufkin Rule Co., Saginaw, Mich.
Schuchardt & Schutte, 136 Liberty St.,
New York.

L. S. Starrett Co., Athol, Mass.

Rules, Metric Steel—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Keuffel & Esser Co., 127 Fulton St., N. Y.
Lufkin Rule Co., Saginaw, Mich.

L. S. Starrett Co., Athol, Mass.

Rules, Scale and Shrinkage—

Billings & Spencer Co., Hartford, Ct.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Chapin-Stephens Co., Pine Meadow, Ct.
Cleveland Galvanizing Works, Cleve-
land, O.

Keuffel & Esser Co., 127 Fulton St., N. Y.
Lufkin Rule Co., Saginaw, Mich.

Stanley Rule & Level Co., New Britain,
Ct.

L. S. Starrett Co., Athol, Mass.

Rules, Slide—

Brown & Sharpe Mfg. Co., Providence,
R. I.

Chapin-Stephens Co., Pine Meadow, Ct.
Keuffel & Esser Co., 127 Fulton St., N. Y.

L. S. Starrett Co., Athol, Mass.

Rules, Spring Joint—

(See Rules, Flexible Folding.)

Rules, Steel—

Billings & Spencer Co., Hartford, Ct.
Brown & Sharpe Mfg. Co., Providence,
R. I.

Henry Disston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., N. Y.

Lufkin Rule Co., Saginaw, Mich.

L. S. Starrett Co., Athol, Mass.

Rules, Steel Caliper—

Brown & Sharpe Mfg. Co., Providence,
R. I.

L. S. Starrett Co., Athol, Mass.

Rules, Steel Cutting and**Creasing—**

Simonds Mfg. Co., Fitchburg, Mass.

Rules, Tinner—

Lufkin Rule Co., Saginaw, Mich.

L. S. Starrett Co., Athol, Mass.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Rules, Zig Zag—

(See Rules, Flexible Folding.)

Rumblers—(See Barrels, Tumbling.)**Runs, House and Car—**

(See Ice Harvesting Tools.)

Rust Preventative—

Charles H. Besly & Co., 15-21 S. Clinton
St., Chicago, Ill.

Rust Repeller—

Marlin Fire Arms Co., New Haven, Ct.

S and S Hooks—

(See Hooks, S and S.)

Sad Iron Handles, Heaters.

(See Handles, Heaters, Stands.)

Sad Irons—

(See Irons, Sad, Laundry, &c.)

Saddle Tops, Bicycle—

(See Bicycle Saddle Tops.)

Saddlers' Hammers—

(See Hammers, Saddlers' and Upholster-
ers')

Saddlery Hardware—

Covert Mfg. Co., Troy, N. Y.
Kilborn & Bishop Co., New Haven, Ct.

North & Judd Mfg. Co., New Britain, Ct.

Saddles, Pipe—

American Spiral Pipe Works, 1173-1201

Paulina St., Chicago, Ill.

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

Safe Works Machinery—

Hilles & Jones Co., Wilmington, Del.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Safes and Vaults—

Stewart Iron Works Co., Cincinnati, O.
Taylor Iron & Steel Co., High Bridge,
N. J.

Safes, Fire and Burglar**Proof—**

Stewart Iron Works Co., Cincinnati, O.
Taylor Iron & Steel Co., High Bridge,
N. J.

Safes, Match—

Columbia Grey Iron Co., Columbia, Pa.
Charles Parker Co., Meriden, Ct.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette
St., New York.

Scovill Mfg. Co., Waterbury, Ct.
Smith & Hemenway Co., 108-110 Duane
St., New York.

Wrightsville Hardware Co., Wrightsville,
Pa.

Safes, Oily Waste—

W. J. Clark Co., Salem, O.

Safety Chains, Pins, Valves—

(See Chains, Pins, Valves.)

Sail Makers' Palms—

(See Palms, Sailors' and Sail Makers')

Salad Casters—

(See Casters, Silver Plated.)

Salad Servers—

(See Servers, Salad.)

Salinometers—

American Steam Gauge & Valve Mfg.
Co., Boston, Mass.

Salt Machinery—

Warsaw Elevator Co., Warsaw, N. Y.

Salt Well Machinery—

(See Well Machinery.)

Salts—

(See Peppers and Salts, Silver Plated.)

Sample Holders—

(See Holders, Sample.)

Sand and Mud Hub Bands—

(See Bands, Vehicle Wheel, Sand and
Mud.)

Sand Blast Machinery—

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.

Sand, Fire—

Henry Maurer & Son, 420 E. 23d St.,
Troy, N. Y.

S. Obermayer Co., Cincinnati, O.

Ostrander Fire Brick Co., Troy, N. Y.

J. W. Paxson Co., 1021 N. Delaware Ave.,
Philadelphia, Pa.

J. D. Smith Foundry Supply Co., Cleve-
land, O.

M. D. Valentine & Bro. Co., Woodbridge,
N. J.

Sand Mixing Machines.**Rolls, Sifters—**

(See Mixing Machines, Rolls, Sifters.)

Sand, Molding—
S. Obermayer Co., Cincinnati, O.
J. W. Paxson Co., 1021 No. Delaware Ave., Philadelphia, Pa.

Sandpaper—
(See Paper, Sand, Garnet, &c.)

Sand Papering and Varnish Rubbing Machines—
Coates Clipper Mfg. Co., Worcester, Mass.

Sandstone—
Pike Mfg. Co., Pike, N. H.

Sanitary Specialties—
(See Bathroom and Toilet Specialties.)

Sap Pails, Spouts—
(See Spouts, Sap.)

Sash Balances, Centers, &c.—
(See Balances, Centers, &c.)

Sash Cord, Ribbon and Wire, Attachments—
(See Irons, Sash Cord, Ribbon and Wire.)

Sash, Metal—
(See Window Frames and Sash, Fire Proof.)

Sash Operating Machinery—
(See Openers, Sash and Window.)

Saturating Machines for Tar Paper—
Farrel Fdy. & Mach. Co., Ansonia, Ct.

Saucepans, Copper—
(See Ware, Copper.)

Saucer Holders—
(See Holders.)

Sausage Stuffers—
(See Stuffers, Sausage.)

Savings Banks, Toy—
(See Toy Savings Banks.)

Saw Arbors, Bucks, &c.—
(See Arbors, Bucks, &c.)

Saw Dust, Boxwood—
Chapin-Stephens Co., Pine Meadow, Ct.

Saw Filers—
(See Filers, Saw.)

Saw Grinders and Rounders—
E. C. Atkins & Co., Indianapolis, Ind.
Simonds Mfg. Co., Fitchburg, Mass.

Saw Guides, Band—
(See Guides, Band Saw.)

Saw Handles, Crosscut—
(See Handles, Crosscut Saw.)

Saw Mill Dogs, Trucks—
(See Dogs, Trucks.)

Saw Mill Machinery—
Badger State Machine Co., Janesville, Wis.
Broderick & Bascom Rope Co., St. Louis.
Humphrey Machine Co., Keene, N. H.
Jeffrey Mfg. Co., Columbus, O.
Lane Mfg. Co., Montpelier, Vt.
A. Leschen & Sons Rope Co., St. Louis.
Soule Steam Feed Works, Meridian, Miss.
Wickes Bros., Saginaw, Mich.

Saw Mills, Circular—
E. C. Atkins & Co., Indianapolis, Ind.
W. F. & John Barnes Co., Rockford, Ill.
Peter Gerlach Co., Cleveland, O.
Humphrey Machine Co., Keene, N. H.
R. E. Kidder, Worcester, Mass.
Lane Mfg. Co., Montpelier, Vt.
J. M. Marston & Co., Boston, Mass.
Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Saw Sets—
(See Sets, Saw.)

Saw Setting and Filing Machines, Band—
(See Setting and Filing Machines, Band Saw.)

Saw Tables, Universal—
Badger State Machine Co., Inc., Janesville, Wis.
Colburn Machine Tool Co., Franklin, Pa.
Crescent Machine Co., Leetonia, O.
Oliver Machinery Co., Grand Rapids, Mich.

Saw Tooth Gauges—
(See Gauges, Saw Tooth.)

Sawing Machines, Band—
Badger State Machine Co., Inc., Janesville, Wis.
Crescent Machine Co., Leetonia, O.
Hobbs Mfg. Co., Worcester, Mass.
Humphrey Machine Co., Keene, N. H.
J. M. Marston & Co., Boston, Mass.
Oliver Machinery Co., Grand Rapids, Mich.
H. G. Thompson & Son Co., New Haven, Ct.
Wickes Bros., Saginaw, Mich.

Sawing Machines, Bevel Band Wood—
Crescent Machine Co., Leetonia, O.

Sawing Machines, Cutting Off—
(See Cutting Off Machines.)

Sawing Machines, Electro and Linotype—
Badger State Machine Co., Inc., Janesville, Wis.
R. E. Kidder, Worcester, Mass.

Sawing Machines, Hand and Foot Power—
Barnes Tool Co., New Haven, Ct.

Sawing Machines, Metal—
American Die & Tool Co., Reading, Pa.
Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.
E. C. Atkins & Co., Indianapolis, Ind.
Badger State Machine Co., Inc., Janesville, Wis.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Billings & Spencer Co., Hartford, Ct.
John T. Burr & Sons, Brooklyn, N. Y.
Espin-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.
H. G. Thompson & Son Co., New Haven, Ct.
United Engineering & Foundry Co., Pittsburgh, Pa.
Vandyck, Churchill Co., 8 Dey St., N. Y.

Sawing Machines, Metal Band—
H. G. Thompson & Son Co., New Haven, Ct.

Sawing Machines, Metal Jig—
H. G. Thompson & Son Co., New Haven, Ct.

Sawing Machines, Pneumatic Log—
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Sawing Machines, Wood—
E. C. Atkins & Co., Indianapolis, Ind.
Badger State Machine Co., Janesville, Wis.

Colburn Machine Tool Co., Franklin, Pa.
 R. E. Kidder, Worcester, Mass.
 Lane Mfg. Co., Montpelier, Vt.
 J. M. Marston & Co., Boston, Mass.
 Wickes Bros., Saginaw, Mich.

Saws and Bucks, Boys'—
 Henry Disston & Sons, Philadelphia, Pa.
 National Saw Co., Newark, N. J.

**Saws and Frames, Turn-
 ing—**
 Chapin-Stephens Co., Pine Meadow, Ct.
 Henry Disston & Sons, Philadelphia, Pa.

Saws, Band—
 E. C. Atkins & Co., Indianapolis, Ind.
 Badger State Machine Co., Inc., Janes-
 ville, Wis.

Bethlehem Foundry & Machine Co.,
 South Bethlehem, Pa.
 Carlin Machinery & Supply Co., Inc.,
 Allegheny, Pa.

Crescent Machine Co., Leetonia, O.
 Henry Disston & Sons, Philadelphia, Pa.
 Fox Machine Co., Grand Rapids, Mich.

Greaves, Klusman & Co., Cincinnati, O.
 Humphrey Machine Co., Keene, N. H.
 J. M. Marston & Co., Boston, Mass.
 National Saw Co., Newark, N. J.

Silver Mfg. Co., Salem, O.
 Simonds Mfg. Co., Fitchburg, Mass.
 H. G. Thompson & Son Co., New Haven,
 Ct.

Saws, Band, for Metal—
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.
 John H. Graham & Co., 113 Chambers
 St., New York.

H. G. Thompson & Son Co., New Haven,
 Ct.
Saws, Bar Cold—
 John T. Burr & Son, Brooklyn, N. Y.

Espen-Lucas Machine Works, Broad and
 Noble Sts., Philadelphia, Pa.
Saws, Bench Hack—
 Goodell-Pratt Co., Greenfield, Mass.

H. G. Thompson & Son Co., New Haven,
 Ct.
Saws, Book Binders'—
 Massachusetts Saw Works, Chicopee,
 Mass.

**Saws, Butcher, Kitchen,
 &c.—**
 E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Henry Disston & Sons, Philadelphia, Pa.
 Goodell-Pratt Co., Greenfield, Mass.

C. E. Jennings & Co., 42 Murray St.,
 New York.
 Massachusetts Saw Works, Chicopee,
 Mass.

Millers Falls Co., 23 Warren St., N. Y.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
 H. G. Thompson & Son Co., New Haven,
 Ct.

Saws, Circular—
 E. C. Atkins & Co., Indianapolis, Ind.
 Crescent Machine Co., Leetonia, O.
 Henry Disston & Sons, Philadelphia, Pa.

Goodell-Pratt Co., Greenfield, Mass.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
**Saws, Combination or Key-
 hole—**

E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.

Saws, Compass or Keyhole—
 E. C. Atkins & Co., Indianapolis, Ind.
 Geo. H. Bishop & Co., Cincinnati, O.
 Bridgeport Hardware Mfg. Co., Bridge-
 port, Ct.

Henry Disston & Sons, Philadelphia, Pa.
 C. E. Jennings & Co., 42 Murray St.,
 New York.

National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
 Tower & Lyon Co., 95 Chambers St.,
 New York.

Saws, Coping—
 E. C. Atkins & Co., Indianapolis, Ind.
 Bridgeport Hardware Mfg. Co., Bridge-
 port, Ct.

Henry Disston & Sons, Philadelphia, Pa.
 John H. Graham & Co., 113 Chambers
 St., New York.
 C. E. Jennings & Co., 42 Murray St.,
 New York.

Massachusetts Saw Works, Chicopee,
 Mass.
 Millers Falls Co., 23 Warren St., N. Y.

Saws, Cylinder—
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.

Saws, Dehorning—
 E. C. Atkins & Co., Indianapolis, Ind.
 W. F. & John Barnes Co., Rockford, Ill.

Geo. H. Bishop & Co., Cincinnati, O.
 Henry Disston & Sons, Philadelphia, Pa.
 Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 23 Warren St., N. Y.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.

Saws, Fret—
 Bridgeport Hardware Mfg. Co., Bridge-
 port, Ct.

Saws, Gauge—
 Henry Disston & Sons, Philadelphia, Pa.

Saws, Grooving—
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.

J. M. Marston & Co., Boston, Mass.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.

**Saws, Hack, Blades and
 Frames—**
 Arcade Mfg. Co., Freeport, Ill.

E. C. Atkins & Co., Indianapolis, Ind.
 Bridgeport Hardware Mfg. Co., Bridge-
 port, Ct.

Diamond Saw & Stamping Works, Buf-
 falo, N. Y.
 Henry Disston & Sons, Philadelphia, Pa.

Alfred Field & Co., 33 Chambers St., N. Y.
 Goodell-Pratt Co., Greenfield, Mass.
 John H. Graham & Co., 113 Chambers
 St., New York.

C. E. Jennings & Co., 42 Murray St., N. Y.
 Massachusetts Saw Works, Chicopee,
 Mass.
 Millers Falls Co., 23 Warren St., N. Y.

National Saw Co., Newark, N. J.
 Niles-Bement-Pond Co., 111 Broadway,
 New York.

Simonds Mfg. Co., Fitchburg, Mass.
 Smith & Hemenway Co., 108-110 Duane
 St., New York.
 L. S. Starrett Co., Athol, Mass.
 H. G. Thompson & Son Co., New Haven,
 Ct.

Union Hardware Co., Torrington, Ct.
 West Haven Mfg. Co., New Haven, Ct.
 Whitaker Mfg. Co., Chicago, Ill.
 (See also Blades, Hack Saw.)

Saws, Hack, Power—

E. C. Atkins & Co., Indianapolis, Ind.
Boston Saw & Tool Co., Boston, Mass.
Jas. Clark, Jr., Electric Co., Louisville,
Ky.

Diamond Saw & Stamping Works, Buf-
falo, N. Y.

Henry Disston & Sons, Philadelphia, Pa.

Goodell-Pratt Co., Greenfield, Mass.

A. L. Henderer's Sons, Wilmington, Del.

Hofer Mfg. Co., Freeport, Ill.

Millers Falls Co., 28 Warren St., N. Y.

National Saw Co., Newark, N. J.

Niles-Bement-Pond Co., 111 Broadway,
New York.

L. S. Starrett Co., Athol, Mass.

H. G. Thompson & Son Co., New Haven,
Ct.

West Haven Mfg. Co., New Haven, Ct.

Saws, Hand, Panel, Back,

&c.—

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St.,
New York.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Hot Metal —

E. C. Atkins & Co., Indianapolis, Ind.

Billings & Spencer Co., Hartford, Ct.

Henry Disston & Sons, Philadelphia, Pa.

George A. Hogg I. & S. Foundry Co.,
Pittsburgh, Pa.

Lewis Foundry & Machine Co., Groveton,
Pa.

Morgan Construction Co., Worcester, Mass.

Morgan Engineering Co., Alliance, O.

National Saw Co., Newark, N. J.

United Engineering & Foundry Co., Pitts-
burgh, Pa.

Saws, Ice—

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

Peter Gerlach Co., Cleveland, O.

Gifford-Wood Co., Arlington, Mass.

C. E. Jennings & Co., 42 Murray St.,
New York.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Inserted Tooth for

Cold Cutting—

Tindel-Morris Co., Eddystone, Pa.

Saws, Jewelers'—

E. C. Atkins & Co., Indianapolis, Ind.

Millers Falls Co., 28 Warren St., N. Y.

Saws, Jig—

E. C. Atkins & Co., Indianapolis, Ind.

Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Fox Machine Co., Grand Rapids, Mich.

Seneca Falls Mfg. Co., Seneca Falls, N. Y.

Saws, Metal Cutting—

E. C. Atkins & Co., Indianapolis, Ind.

Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.

R. M. Clough, Tolland, Ct.

Henry Disston & Sons, Philadelphia, Pa.

Espen-Lucas Machine Works, Broad and
Noble Sts., Philadelphia, Pa.

Hofer Mfg. Co., Freeport, Ill.

Lewis Foundry & Machine Co., Groveton,
Pa.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.
H. G. Thompson & Son Co., New Haven,
Ct.

Saws, Metal Jig—
H. G. Thompson & Son Co., New Haven,
Ct.

Saws, Mill, Muley, Crosscut,

Drag, Gang Pit, Whip, &c.—

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Miter Box—

(See Saws, Hand, Panel, Back, &c.)

Saws, Plumbers'—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Disston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St.,
New York.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Plumbers', Hollow

Mill—

West Haven Mfg. Co., New Haven, Ct.

Saws, Pruning—

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Henry Disston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St., N. Y.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Rail—

E. C. Atkins & Co., Indianapolis, Ind.

Espen-Lucas Machine Works, Broad and
Noble Sts., Philadelphia, Pa.

Industrial Works, Bay City, Mich.

H. G. Thompson & Sons Co., New Haven,
Ct.

Saws, Rift—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Disston & Sons, Philadelphia, Pa.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Scroll, and Scroll Saw

Blades—

E. C. Atkins & Co., Indianapolis, Ind.

W. F. & John Barnes Co., Rockford, Ill.

Henry Disston & Sons, Philadelphia, Pa.

John H. Graham & Co., 113 Chambers
St., New York.

Greaves, Klusman & Co., Cincinnati, O.

Millers Falls Co., 28 Warren St., N. Y.

National Saw Co., Newark, N. J.

Seneca Falls Mfg. Co., Seneca Falls,
N. Y.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Segment or Veneer-

ing—

E. C. Atkins & Co., Indianapolis, Ind.

Henry Disston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Saws, Slitting—

E. C. Atkins & Co., Indianapolis, Ind.

Becker-Brainard Milling Machine Co.,
Hyde Park, Mass.

Henry Disston & Sons, Philadelphia, Pa.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.

Standard Tool Co., Cleveland, O.

Saws, Slitting, Metal.

E. C. Atkins & Co., Indianapolis, Ind.

Brown & Sharpe Mfg. Co., Providence,
R. I.

R. M. Clough, Tolland, Ct.
 Henry Diston & Sons, Philadelphia, Pa.
 Pratt & Whitney Co., Hartford, Ct.
 Standard Tool Co., Cleveland, O.
 Union Twist Drill Co., Athol, Mass.

Saws, Slotting Screw—
 Henry Diston & Sons, Philadelphia, Pa.

Saws, Stone—
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Diston & Sons, Philadelphia, Pa.
 Elyria Iron & Steel Co., Elyria, O.
 Hendrick Mfg. Co., Carbondale, Pa.

Saws, Swing Cut Off—
 E. C. Atkins & Co., Indianapolis, Ind.
 Badger State Machine Co., Inc., Janesville, Wis.

Crescent Machine Co., Leetonia, O.
 Fox Machine Co., Grand Rapids, Mich.
 Gravers, Khusman & Co., Cincinnati, O.
 Lane Mfg. Co., Montpelier, Vt.
 Oliver Machinery Co., Grand Rapids, Mich.

Saws, Tube—
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Diston & Sons, Philadelphia, Pa.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Saws, Turning—
 (See Webs, Turning, Felloe, &c.)
Saws, Wood, and Wood Saw Blades—

E. C. Atkins & Co., Indianapolis, Ind.
 Geo. H. Bishop & Co., Cincinnati, O.
 Henry Diston & Sons, Philadelphia, Pa.
 C. E. Jennings & Co., 42 Murray St., N. Y.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.

Scaffolding, Adjustable—
 Fuller Mfg. Co., St. Paul, Minn.

Scale Attachments, Recording, Registering, &c.—
 Standard Scale & Supply Co., Pittsburgh.

Scale Beams—
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Scales and Measures, Steel, Diamond Points for Marking—

Est. of John Dickinson, 64 Nassau St., New York.

Scales, Fish—
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Landers, Frary & Clark, New Britain, Ct.
 Reading Hardware Co., Reading, Pa.
 Susquehanna Casting Co., Wrightsville, Pa.

Scales, Abattoir and Butcher—

John Chatillon & Sons, 85 Cliff St., N. Y.
 Landers, Frary & Clark, New Britain, Ct.
 Reading Hardware Co., Reading, Pa.
 Standard Scale & Supply Co., Pittsburgh.

Scales, Armor Plate—
 (See Scales, Special.)

Scales, Army and Navy—
 Standard Scale & Supply Co., Pittsburgh.

Scales, Arsenal—
 (See Scales, Special.)

Scales, Asphalt—
 (See Scales, Special.)

Scales, Assay—
 (See Assay Balances and Scales.)

Scales, Bathroom—
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Standard Scale & Supply Co., Pittsburgh.

Scales, Billet—

(See Scales, Special.)

Scales, Blast Furnace—

(See Scales, Furnace, Charging and Foundry.)

Scales, Bloom—

(See Scales, Special.)

Scales, Boiler Room—

Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Brewers—

(See Scales, Hopper.)

Scales, Bullock—

(See Scales, Stock.)

Scales, Bundling—

(See Scales, Special.)

Scales, Butter—

(See Scales, Counter and Grocers'.)

Scales, Candy—

American Cutlery Co., Chicago, Ill.
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Landers, Frary & Clark, New Britain, Ct.
 I. S. Spencer's Sons, Guilford, Ct.
 Standard Scale & Supply Co., Pittsburgh.

Scales, Charging—

Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Cheese—

Standard Scale & Supply Co., Pittsburgh.

Scales, Coal Mine and Tipple—

Standard Scale & Supply Co., Pittsburgh.

Scales, Copper—

Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Cotton and Wool—

Standard Scale & Supply Co., Pittsburgh.

Scales, Counter and Grocers—

American Cutlery Co., Chicago, Ill.
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Landers, Frary & Clark, New Britain, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.
 I. S. Spencer's Sons, Guilford, Ct.

Standard Scale & Supply Co., Pittsburgh.

Scales, Crane—

Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Creamery, Dairy—

(See Scales, Cheese.)

Scales, Depot—

Standard Scale & Supply Co., Pittsburgh.

Scales, Dormant and Warehouse—

Standard Scale & Supply Co., Pittsburgh.

Scales, Draftsmen's

Brown & Sharpe Mfg. Co., Providence, R. I.

Kenfelf & Esser Co., 127 Fulton St., N. Y.
 L. S. Starrett Co., Athol, Mass.

Scales, Dump—

Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Estimating—

John Chatillon & Sons, 85 Cliff St., N. Y.

Scales, Express Package—

Standard Scale & Supply Co., Pittsburgh.

Scales, Family—

American Cutlery Co., Chicago, Ill.
 John Chatillon & Sons, 85 Cliff St., N. Y.
 Landers, Frary & Clark, New Britain, Ct.
 I. S. Spencer's Sons, Guilford, Ct.

Standard Scale & Supply Co., Pittsburgh.

Scales, Fish—
Landers, Frary & Clark, New Britain, Ct.
Standard Scale & Supply Co., Pittsburgh.

Scales, Flour, Freight—
(See Scales, Dormant and Warehouse.)

Scales, Furnace Charging and Foundry—
Standard Scale & Supply Co., Pittsburgh.

Scales, Galvanized—
(See Scales, Fish.)

Scales, Gauging, Liquids—
Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Glass Works—
Standard Scale & Supply Co., Pittsburgh.

Scales, Graduated—
Brown & Sharpe Mfg. Co., Providence, R. I.

Scales, Grain and Elevator—
Standard Scale & Supply Co., Pittsburgh.

Scales, Grocers—
(See Scales, Counter and Grocers.)

Scales, Hanging Hopper Beam—
Standard Scale & Supply Co., Pittsburgh.

Scales, Hay—
(See Scales, Stock, Wagon and Hay.)

Scales, Hide and Leather—
Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Hopper—
Standard Scale & Supply Co., Pittsburgh.

Scales, Hospital—
(See Scales, Professional.)

Scales, Hot Bed, Disappearing—
Standard Scale & Supply Co., Pittsburgh.

Scales, Hot Metal—
(See Scales, Special.)

Scales, Ice—
John Chatillon & Sons, 85 Cliff St., N. Y.

Gifford-Wood Co., Arlington, Mass.
Landers, Frary & Clark, New Britain, Ct.

Standard Scale & Supply Co., Pittsburgh.

Scales, Incline Plane—
(See Scales, Special.)

Scales, Industrial Railway—
Arthur Koppel Co., Pittsburgh, Pa.

Standard Scale & Supply Co., Pittsburgh.

Scales, Iron Dealers—
(See Scales, Dormant and Warehouse.)

Scales, Lorry—
Standard Scale & Supply Co., Pittsburgh.

Scales, Leather Inspectors—
John Chatillon & Sons, 85 Cliff St., N. Y.

Scales, Letter—
Landers, Frary & Clark, New Britain, Ct.

Standard Scale & Supply Co., Pittsburgh.

Scales, Locomotive—
(See Scales, Special.)

Scales, Malt—
(See Scales, Hopper.)

Scales, Market—
(See Scales, Counter and Grocers.)

Scales, Metal—
(See Scales, Ore, Metal and Pig Iron.)

Scales, Milk and Cream—
Landers, Frary & Clark, New Britain, Ct.

Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Miners' and Transportation—
Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Mixer—

(See Scales, Special.)

Scales, Muck Bar—

(See Scales, Special.)

Scales, Ore Bucket—

Standard Scale & Supply Co., Pittsburgh.

Scales, Ore, Metal and Iron—

Standard Scale & Supply Co., Pittsburgh.

Scales, Personal—

John Chatillon & Sons, 85 Cliff St., N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Physicians—

(See Scales, Professional.)

Scales, Pig Iron—

(See Scales, Ore, Metal and Pig Iron.)

Scales, Pig Iron Car—

(See Scales, Special.)

Scales, Platform—

John Chatillon & Sons, 85 Cliff St., N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Standard Scale & Supply Co., Pittsburgh.

Ernst Wiener Co., Broad and Beaver Sta., New York.

Zimmerman Steel Co., Lone Tree, Ia.

Scales, Portable—

(See Scales, Platform.)

Scales, Postal—

John Chatillon & Sons, 85 Cliff St., N. Y.

International Silver Co., Meriden, Ct.

Standard Scale & Supply Co., Pittsburgh.

Scales, Pottery Charging—

Standard Scale & Supply Co., Pittsburgh.

Scales, Professional—

Standard Scale & Supply Co., Pittsburgh.

Scales, Rail—

(See Scales, R. R. Track.)

Scales, R. R. Track—

Arthur Koppel Co., Pittsburgh, Pa.

Standard Scale & Supply Co., Pittsburgh.

Ernst Wiener Co., Broad and Beaver Sta., New York.

Scales, Recruiting—

(See Scales, Army and Navy.)

Scales, Reverse Acting Meat Beam—

John Chatillon & Sons, 85 Cliff St., N. Y.

Standard Scale & Supply Co., Pittsburgh.

Scales, Rolling Mill—

(See Scales, Charging.)

Scales, Salt Meat—

(See Scales, Fish.)

Scales, Special—

Armor Plate, Billet, Bloom, Hot Metal, Incline Plane, Locomotive, Mixer, Muck Bar, Pig Iron Car, Steel Plant Turntable—

Standard Scale & Supply Co., Pittsburgh, Pa.

Scales, Spice—

(See Scales, Counter and Grocers.)

Scales, Spring—

John Chatillon & Sons, 85 Cliff St., N. Y.

Landers, Frary & Clark, New Britain, Ct.

I. S. Spencer's Sons, Guilford, Ct.

Standard Scale & Supply Co., Pittsburgh.

Scales, Square Platform—

(See Scales, Platform.)

Scales, Steel Plant—

(See Scales, Special.)

Scales, Stock, Wagon and Hay—

Standard Scale & Supply Co., Pittsburgh.

- Scales, Suspension—**
John Chatillon & Sons, 85 Cliff St., N. Y.
Standard Scale & Supply Co., Pittsburgh.
- Scales, Tank—**
Standard Scale & Supply Co., Pittsburgh, Pa.
- Scales, Tea—**
(See Scales, Counter and Grocers'.)
- Scales, Tipple—**
(See Scales, Coal Mine and Tipple.)
- Scales, Tramway—**
Standard Scale & Supply Co., Pittsburgh.
- Scales, Traveling Crane—**
Standard Scale & Supply Co., Pittsburgh.
- Scales, Trip—**
(See Scales, Counter and Grocers'.)
- Scales, Turntable—**
(See Scales, Special.)
- Scales, Vibratory Axle—**
(See Scales, Hide and Leather.)
- Scales, Union—**
John Chatillon & Sons, 85 Cliff St., N. Y.
Standard Scale & Supply Co., Pittsburgh.
- Scales, Wagon—**
(See Scales, Stock, Wagon and Hay.)
- Scales, Warehouse—**
(See Scales, Durnant and Warehouse.)
- Scales, Wheelbarrow—**
Standard Scale & Supply Co., Pittsburgh, Pa.
- Scales, Whiskey—**
Standard Scale & Supply Co., Pittsburgh, Pa.
- Scales, Wool—**
Standard Scale & Supply Co., Pittsburgh, Pa.
- Scales, Yarn—**
Brown & Sharpe Mfg. Co., Providence, R. I.
- Scaling Machines for Metal—**
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
- Scarfing Machines for Tube Mills—**
United Engineering & Foundry Co., Pittsburgh, Pa.
- Scarfing Machines, Plate—**
Detrick & Harvey Machine Co., Baltimore, Md.
- School Houses, Portable—**
(See Houses, Portable.)
- School Outfits, Manual Training—**
Buffalo Forge Co., Buffalo, N. Y.
Oliver Machinery Co., Grand Rapids, Mich.
- F. E. Reed Co., Worcester, Mass.**
- Schools, Correspondence—**
American School of Correspondence, Chicago, Ill.
- Schools, Manual Training—**
Washburn Shops, Worcester, Mass.
- Scissors—**
(See Shears and Scissors.)
- Scissors, Bent—**
Alfred Field & Co., 93 Chambers St., New York.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
- Scissors, Button Hole—**
Acme Shear Co., Bridgeport, Ct.
Atlas Shear Co., Bridgeport, Ct.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
Cronk & Carrier Mfg. Co., Elmira, N. Y.
- Alfred Field & Co., 93 Chambers St., New York.**
- Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.**
- J. Wiss & Sons Co., Newark, N. J.**
- Scissors, Cigar Cutter and Pocket—**
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- J. Wiss & Sons Co., Newark, N. J.**
- Scissors, Electrician—**
J. Wiss & Sons Co., Newark, N. J.
- Scissors, Embroidery—**
Atlas Shear Co., Bridgeport, Ct.
Alfred Field & Co., 93 Chambers St., New York.
- Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.**
- J. Wiss & Sons Co., Newark, N. J.**
- Scissors, Finger Nail—**
(See Scissors, Manicure.)
- Scissors, Grape—**
J. Wiss & Sons Co., Newark, N. J.
- Scissors, Kindergarten—**
Acme Shear Co., Bridgeport, Ct.
- Atlas Shear Co., Bridgeport, Ct.**
- Bridgeport Hardware Mfg. Co., Bridgeport, Ct.**
- Scissors, Ladies'—**
(See Shears and Scissors.)
- Scissors, Manicure—**
J. Wiss & Sons Co., Newark, N. J.
- Scissors, Pocket—**
Acme Shear Co., Bridgeport, Ct.
- Atlas Shear Co., Bridgeport, Ct.**
- Bridgeport Hardware Mfg. Co., Bridgeport, Ct.**
- Cronk & Carrier Mfg. Co., Elmira, N. Y.**
- Alfred Field & Co., 93 Chambers St., New York.**
- R. Heinsich's Sons Co., Newark, N. J.**
- National Cutlery Co., Lehigh Ave., American & Third Sts., Philadelphia.**
- Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.**
- J. Wiss & Sons Co., Newark, N. J.**
- Scissors, Tailors' Points—**
(See Points, Tailors'.)
- Scoop Nets—**
(See Nets, Scoop.)
- Scoops, Ash Pan—**
Hubbard & Co., Pittsburgh, Pa.
- Scoops, Breaking Down—**
Steel Basket Co., Cedar Rapids, Ia.
- Scoops, Candy—**
John Chatillon & Sons, 85 Cliff St., N. Y.
- Scoops, Churn—**
Avery Stamping Co., Cleveland, O.
- Hubbard & Co., Pittsburgh, Pa.**
- Steel Basket Co., Cedar Rapids, Ia.**
- Scoops, Cheese—**
American Cutlery Co., Chicago, Ill.
- Lamson & Goodnow Mfg. Co., Shelburne Falls, Mass.**
- Landers, Frary & Clark, New Britain, Ct.**
- Scoops, Firing—**
Avery Stamping Co., Cleveland, O.
- Hubbard & Co., Pittsburgh, Pa.**
- Steel Basket Co., Cedar Rapids, Ia.**
- Scoops, Furnace, Pole Hole—**
(See Shovels and Scoops.)
- Scoops, Gas Stoking—**
(See Scoops, Charging.)
- Scoops, Grain, Coal, &c.—**
Avery Stamping Co., Cleveland, O.
- W. J. Clark Co., Salem, O.**

Conneaut Shovel Co., Conneaut, O.

Hubbard & Co., Pittsburgh, Pa.

Steel Basket Co., Cedar Rapids, Ia.

Scoops, Ice Cream—

Erie Specialty Co., Erie, Pa.

Scoops, Ore—

Hubbard & Co., Pittsburgh, Pa.

Scoops, Saw Dust—

Hubbard & Co., Pittsburgh, Pa.

Steel Basket Co., Cedar Rapids, Ia.

Scoops, Wood—

John Sommer's Son, Newark, N. J.

Scoring Machines, Paper—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Scrap—

(See Material, Old.)

Scrapper and Buffer Steels—

(See Steels, Buffer and Scrapper.)

Scrapers, Bar—

(See Cleaners, Bar.)

Scrapers, Bearing and Ma-

chinalists—

Krauter & Co., Inc., Newark, N. J.

Scrapers, Block—

L. S. Starrett Co., Athol, Mass.

Scrapers, Boiler Flue—

(See Cleaners, Flue.)

Scrapers, Box—

Chapin-Stephens Co., Pine Meadow, Ct.

Krauter & Co., Inc., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Stanley Rule & Level Co., New Britain,

Ct.

Scrapers, Butchers' Block—

John Chatillon & Sons, 85 Cliff St., N. Y.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

L. S. Starrett Co., Athol, Mass.

Scrapers, Cabinet and

Bench—

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St.,

New York.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Stanley Rule & Level Co., New Britain,

Ct.

L. S. Starrett Co., Athol, Mass.

Scrapers, Ditching—

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Scrapers, Floor—

E. C. Atkins & Co., Indianapolis, Ind.

Osborn Mfg. Co., Cleveland, O.

L. S. Starrett Co., Athol, Mass.

Scrapers, Flue—

(See Cleaners, Flue.)

Scrapers, Foot—

Arcade Mfg. Co., Freeport, Ill.

Bethlehem Foundry & Machine Co.,

South Bethlehem, Pa.

Columbia Grey Iron Co., Columbia, Pa.

Griffin Mfg. Co., Erie, Pa.

National Mfg. Co., Sterling, Ill.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Reading Hardware Co., Reading, Pa.

Wrightsville Hardware Co., Wrightsville,

Pa.

Scrapers, Hog—

John Chatillon & Sons, 85 Cliff St., N. Y.

W. J. Clark Co., Salem, O.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Smith & Hemenway Co., 108-110 Duane

St., New York.

Scrapers, Ice—

(See Ice Harvesting Tools.)

Scrapers, Ice Cream—

Mosteller Mfg. Co., 79 Dearborn St., Chi-

cago, Ill.

Scrapers, Kettle—

F. E. Kohler & Co., Canton, O.

Wire Goods Co., Worcester, Mass.

Scrapers, Machinists—

Henry Disston & Sons, Philadelphia, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Nicholson File Co., Providence, R. I.

Scrapers, Metal—

Kilborn & Bishop Co., New Haven, Ct.

Scrapers, Plumbers—

Krauter & Co., Inc., Newark, N. J.

Thomas Laughlin Co., Portland, Me.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Wilcox, Crittenden & Co., Inc., Middle-

town, Ct.

Scrapers, Road—

Bethlehem Foundry & Machine Co.,

South Bethlehem, Pa.

Kilbourne & Jacobs Mfg. Co., Colum-

bus, O.

Syracuse Chilled Plow Co., Syracuse

N. Y.

Scrapers, Sheet Metal—

Waterbury Farrel Foundry & Machine

Co., Waterbury, Ct.

Scrapers, Ship—

Kilborn & Bishop Co., New Haven, Ct.

Thomas Laughlin Co., Portland, Me.

Wilcox, Crittenden & Co., Inc., Middle-

town, Ct.

Scrapers, Shovel—

Arcade Mfg. Co., Freeport, Ill.

Scrapers, Sidewalk—

(See Cleaners, Sidewalk.)

Scrapers, Single or Double

End—

Hubbard & Co., Pittsburgh, Pa.

Scrapers, Stove—

S. M. Howes Co., Boston, Mass.

Ohio Nut & Bolt Co., Berea, O.

Wire Goods Co., Worcester, Mass.

Scrapers, Veneer—

Stanley Rule & Level Co., New Britain,

Ct.

Scrapers, Walk and Street—

American Fork & Hoe Co., Cleveland, O.

F. E. Kohler & Co., Canton, O.

L. & I. J. White Co., Buffalo, N. Y.

Scrapers, Wall—

E. C. Atkins & Co., Indianapolis, Ind.

Bridgeport Hardware Mfg. Co., Bridge-

port, Ct.

Columbian Cutlery Co., Reading, Pa.

Henry Disston & Sons, Philadelphia, Pa.

C. E. Jennings & Co., 42 Murray St.,

New York.

Kilborn & Bishop Co., New Haven, Ct.

F. E. Kohler & Co., Canton, O.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Smith & Hemenway Co., 108-110 Duane

St., New York.

Scrapers, Wire—

(See Knives, Electrician.)

Scratch Awls, Gauges—

(See Awls, Gauges.)

Screen Bolts, Doors, &c.—

(See Bolts, Doors, &c.)

Screen Door Hinges—

(See Hinges, Spring.)

Screen, Wire Cloth—

(See Cloth, Wire.)

Screens, Cement—

Chas. Mundt & Sons, 41 Pearl St., N. Y.

Screens, Chalk Trough—

Buffalo Wire Co., Inc., Buffalo, N. Y.

Screens, Cotton Seed Oil—

Dufur & Co., Baltimore, Md.

Erdle Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 224

No. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Michigan Wire Cloth Co., Detroit, Mich.

Chas. Mundt & Sons, 441-447 Pearl St.,

New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Screens, Fertilizer—

Dufur & Co., Baltimore, Md.

Screens, Fire, Folding—

Buffalo Wire Works Co., Buffalo, N. Y.

S. M. Howes Co., Boston, Mass.

Screens, Mining—

Dufur & Co., Baltimore, Md.

Harrington & King Perforating Co., 224

No. Union St., Chicago, Ill.

Jeffrey Mfg. Co., Columbus, O.

Michigan Wire Cloth Co., Detroit, Mich.

Chas. Mundt & Sons, 441-447 Pearl St.,

New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

W. S. Tyler Co., Cleveland, O.

Webster Mfg. Co., 1075-1111 W. 15th St.,

New York.

Screens, Ornamental, Per-forator **Sheet or Bronze—**

Erdle Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 224

No. Union St., Chicago, Ill.

Screens, Piano Wire Clay**Working—**

Turner, Vaughn & Taylor Co., Cuyahoga

Falls, O.

Screens, Radiator—

Erdle Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 224

No. Union St., Chicago, Ill.

Screens, Revolving—

Thomas Carlin's Sons, Allegheny, Pa.

H. W. Caldwell & Son Co., Western Ave.

and 17th St., Chicago, Ill.

Harrington & King Perforating Co., 224

No. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Howard & Morse, 45 Fulton St., N. Y.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Co., Philadelphia, Pa.

Michigan Wire Cloth Co., Detroit, Mich.

Charles Mundt & Sons, 441-447 Pearl St.,

New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Taylor Iron & Steel Co., High Bridge,

N. J.

W. S. Tyler Co., Cleveland, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

Screens, Rolled Slot—

W. S. Tyler Co., Cleveland, O.

Screens, Sand and Coal, &c.—

Buffalo Wire Works Co., Buffalo, N. Y.

H. W. Caldwell & Son Co., Western Ave.

and 17th St., Chicago, Ill.

Geo. V. Cresson Co., 13th St. & Alle-

gheny Ave., Philadelphia, Pa.

Edward Darby & Sons, 233-235 Arch St.,

Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

Estey Wire Works Co., 59 Fulton St.,

New York.

Gilbert & Bennett Mfg. Co., 277 Broad-

way, New York.

Glen Mfg. Co., Ellwood City, Pa.

Harrington & King Perforating Co., 224

No. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Howard & Morse, 45 Fulton St., N. Y.

C. W. Hunt Co., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.

Link-Belt Co., Philadelphia, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Michigan Wire Cloth Co., Detroit, Mich.

Charles Mundt & Sons, 441-447 Pearl St.,

New York.

R. Munroe & Sons Mfg. Corporation,

Pittsburgh, Pa.

Osborn Mfg. Co., Cleveland, O.

Robins Conveying Belt Co., Park Row

Bldg., New York.

Steel Basket Co., Cedar Rapids, Ia.

Turner, Vaughn & Taylor Co., Cuyahoga,

Falls, O.

W. S. Tyler Co., Cleveland, O.

Wellman-Seaver-Morgan Co., Cleveland, O.

Wright Wire Co., Worcester, Mass.

Screens, Shaking—

Erdle Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 224

No. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Link-Belt Co., Philadelphia, Pa.

Michigan Wire Cloth Co., Detroit, Mich.

Chas. Mundt & Sons, 441-447 Pearl St.,

New York.

Screens, Skylight Guard—

Buffalo Wire Works Co., Inc., Buffalo,

N. Y.

Screens, Swinging, Half**Window—**

Phenix Mfg. Co., Milwaukee, Wis.

Screens, Window—

Edward Darby & Sons, 233-235 Arch St.,

Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

Screens, Window, to Order—

Phenix Mfg. Co., Milwaukee, Wis.

Screw Cases—

(See Cases, Screw and Bolt.)

Screw Cutting Die Heads—

(See Die Heads, Screw Cutting.)

Screw Cutting Dies—

(See Stocks, Taps and Dies.)

Screw Driver Bits, Hold-

ers—

(See Bits, Holders.)

Screw Drivers—

(See Drivers, Screw.)

Screw Eyes—

(See Wire Goods, Bright.)

Screw Holder and Driver—

(See Drivers, Screw and Holder.)

Screw Hook Hinges—

(See Hinges, Screw Hook or Strap and

Eye.)

Screw Jacks, Plates, Press-

es, Pulleys, Wrenches—

(See Jacks, Plates, Presses, Pulleys,

Wrenches.)

Screw Machine Products—

American Gas Machine Co., Albert Lea,

Miss.

Bancroft & Co., Philadelphia, Pa.
Wallace Barnes Co., Bristol, Ct.
Blake & Johnson Co., Waterbury, Ct.
Chicago Screw Co., 2 Canal St., Chicago, Ill.

Clark Novelty Co., Rochester, N. Y.
Detroit Screw Works, Detroit, Mich.
Geo. W. Dover, Providence, R. I.
Grant Mfg. & Machine Co., Bridgeport, Ct.

Hartford Machine Screw Co., Hartford, Ct.

Harvey Hubbell, Bridgeport, Ct.

John R. Keim Mills, Inc., Buffalo, N. Y.

Metal Specialties Mfg. Co., Chicago, Ill.

Frank Mossberg Co., Attleboro, Mass.

National-Acme Mfg. Co., Cleveland, O.

National Cycle Mfg. Co., Bay City, Mich.

National Sewing Machine Co., Belvidere, Ill.

New Haven Machine Screw Co., New Haven, Ct.

John L. Parker Co., Worcester, Mass.

Rhode Island Tool Co., Providence, R. I.

F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.

I. S. Spencer's Sons, Guilford, Ct.

Universal Machine Screw Co., Hartford, Ct.

F. E. Wells & Sons Co., Greenfield, Mass.

Screw Machine Products.

Hardened and Ground—

Detroit Screw Works, Detroit, Mich.

Screw Machinery, Wood—

Asa S. Cook Co., Hartford, Ct.

Screw Machines—

Atlas Car & Mfg. Co., Cleveland, O.

Brown & Sharpe Mfg. Co., Providence, R. I.

Dresser Machine Tool Co., Cincinnati, O.

Garvin Machine Co., Spring & Varick Sts., New York.

Hartford Machine Screw Co., Hartford, Ct.

Jones & Lamson Machine Co., Springfield, Vt.

Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

E. J. Manville Mach. Co., Waterbury, Ct.

National-Acme Mfg. Co., Cleveland, O.

Niles-Bement-Pond Co., 111 Broadway, New York.

Pratt & Whitney Co., Hartford, Ct.

Risdon Tool Works, Inc., Waterbury, Ct.

Universal Machine Screw Co., Hartford, Ct.

Warner & Swasey Co., Cleveland, O.

F. E. Wells & Sons Co., Greenfield, Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.

Hill, Clarke & Co., Boston, Mass.

J. J. McCabe, 14 Dey St., New York.

Marshall & Huschart, Machinery Co., 62-64 So. Canal St., Chicago, Ill.

McDowell, Stocker & Co., 59 S. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co., Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty St., New York.

Vanduyck, Churchill Co., 8 Dey St., N. Y.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Screw Machines, Auto-

matic—

Pratt & Whitney Co., Hartford, Ct.

Universal Machine Screw Co., Hartford, Ct.

Screw Machines, Hand—

Pratt & Whitney Co., Hartford, Ct.

Screw Machines, Multiple

Automatic—

Universal Machine Screw Co., Hartford, Ct.

Screw Machines, Sheet

Metal—

F. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.

W. H. Hibbard Mfg. Co., Brooklyn, N. Y.

Chas. Leffler & Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo, N. Y.

Screw Machines, Tools for—

Brown & Sharpe Mfg. Co., Providence, R. I.

Garvin Machine Co., Spring and Varick Sts., New York.

Hartford Machine Screw Co., Hartford, Ct.

Pratt & Whitney Co., Hartford, Ct.

Screw Plates with Taps and Dies—

(See Stocks, Taps and Dies.)

Screw Rods—

(See Rods, Screw.)

Screw Shaving Machines—

(See Shaving Machines, Screw.)

Screw Slotting Cutters—

(See Cutters, Milling.)

Screws, Bed—

Shelton Co., Shelton, Ct.

Upson Nut Co., Cleveland, O.

Screws, Bench—

Detroit Screw Works, Detroit, Mich.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Screws, Cap and Set—

Anthony Screw Co., Worcester, Mass.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Clark Bros. Bolt Co., Milldale, Ct.

Detroit Screw Works, Detroit, Mich.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Harvey Hubbell, Bridgeport, Ct.

Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.

National-Acme Mfg. Co., Cleveland, O.

National Sewing Machine Co., Belvidere, Ill.

New Haven Machine Screw Co., New Haven, Ct.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Rhode Island Tool Co., Providence, R. I.

St. Louis Screw Co., St. Louis, Mo.

Scoville Mfg. Co., Waterbury, Ct.

Steward & Romaine Mfg. Co., Philadelphia, Pa.

Universal Machine Screw Co., Hartford, Ct.

Upson Nut Co., Cleveland, O.

Worcester Machine Screw Co., Worcester, Mass.

Screws, Cap, for Locks—

American Screw Co., Providence, R. I.

Screws, Coach and Lag—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Clark Bros. Bolt Co., Middale, Ct.

Grabler Mfg. Co., Cleveland, O.

Graham Nut Co., Pittsburgh, Pa.

Sam'l Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.

Milton Mfg. Co., Milton, Pa.

National Bolt & Nut Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

St. Louis Screw Co., St. Louis, Mo.

Upson Nut Co., Cleveland, O.

Screws, Collar—

Anthony Screw Co., Worcester, Mass.

Atlas Bolt & Screw Co., Cleveland, O.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Detroit Screw Works, Detroit, Mich.

Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

New Haven Machine Screw Co., New Haven, Ct.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

St. Louis Screw Co., St. Louis, Mo.

Worcester Machine Screw Co., Worcester, Mass.

Screws, Cork—

Dame, Stoddard & Co., Boston, Mass.

Eric Specialty Co., Erie, Pa.

Smith & Hemenway Co., 108-110 Duane St., New York.

Screws, Door Knob—

American Screw Co., Providence, R. I.

Atlas Bolt & Screw Co., Cleveland, O.

Kirk-Latty Mfg. Co., Cleveland, O.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Screws, Dowel—

Wire Goods Co., Worcester, Mass.

Screws, Drive—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Blake & Johnson Co., Waterbury, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

M. Lanz & Sons, Pittsburgh, Pa.

Screws, Electric Apparatus—

(See Screws, Machine.)

Screws, Galvanized—

Keystone Nail Co., Philadelphia, Pa.

Thomas Laughlin Co., Portland, Me.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Screws, Gun and Pistol—

Hartford Machine Screw Co., Hartford, Ct.

Screws, Hand—

Chapin-Stephens Co., Pine Meadow, Ct.

Detroit Screw Works, Detroit, Mich.

Oliver Machinery Co., Grand Rapids, Mich.

Screws, Hand Rail—

American Screw Co., Providence, R. I.

Malleable Iron Works, New Britain, Ct.

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Screws, Hanger—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Detroit Screw Works, Detroit, Mich.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

St. Louis Screw Co., St. Louis, Mo.

Upson Nut Co., Cleveland, O.

Screws, Headless—

Atlas Bolt & Screw Co., Cleveland, O.

Detroit Screw Works, Detroit, Mich.

Hartford Machine Screw Co., Hartford, Ct.

New Haven Machine Screw Co., New Haven, Ct.

Screws, Hook and Eye—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

W. & J. Tiebout, 118 Chambers St., N. Y.

Screws, Jack—

(See Jacks, Screw.)

Screws, Machine—

American Screw Co., Providence, R. I.

Anthony Screw Co., Worcester, Mass.

Atlas Bolt & Screw Co., Cleveland, O.

Atlas Car & Mfg. Co., Cleveland, O.

Blake & Johnson Co., Waterbury, Ct.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Detroit Screw Works, Detroit, Mich.

Harvey Hubbell, Bridgeport, Ct.

Kirk-Latty Mfg. Co., Cleveland, O.

Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.

New Haven Machine Screw Co., New Haven, Ct.

Ohio Nut & Bolt Co., Berea, O.

Philadelphia Machine Screw Works, 24-26 Race St., Philadelphia, Pa.

Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

St. Louis Screw Co., St. Louis, Mo.

Scovill Mfg. Co., Waterbury, Ct.

Universal Machine Screw Co., Hartford, Ct.

Worcester Machine Screw Co., Worcester, Mass.

Screws, Milled—

Atlas Bolt & Screw Co., Cleveland, O.

Atlas Car & Mfg. Co., Cleveland, O.

Screws, Mirror—

American Ring Co., Waterbury, Ct.

Screws, Ore Washery—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Screws, Pad—

American Hivet Co., New Haven, Ct.

North & Judd Mfg. Co., New Britain, Ct.

Screws, Piano Action Hardware—

Blake & Johnson Co., Waterbury, Ct.

Screws, Radiator—

Chas. Mundt & Sons, 41 Pearl St., N. Y.

Screws, Saw—

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Simonds Mfg. Co., Fitchburg, Mass.

Screws, Scissor and Shear—

New Haven Machine Screw Co., New Haven, Ct.

Screws, Shear—

Hartford Machine Screw Co., Hartford, Ct.

Screws, Shoulder—
New Haven Machine Screw Co., New Haven, Ct.

Screws, Shutter, Store Door—
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Screws, Soft Expansion Machine, Electricians' and Plumbers'—
A. C. Seaman, 1638 Hutchinson St., Philadelphia, Pa.

Screws, Special—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Atlas Bolt & Screw Co., Cleveland, O.
Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Blake & Johnson Co., Waterbury, Ct.
Detroit Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Harvey Hubbell, Bridgeport, Ct.
Kirk-Latty Mfg. Co., Cleveland, O.
Metal Specialties Mfg. Co., Chicago, Ill.
Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.

National-Acme Mfg. Co., Cleveland, O.
National Cycle Mfg. Co., Bay City, Mich.
New Haven Machine Screw Co., New Haven, Ct.

Philadelphia Machine Screw Works, 624-626 Race St., Philadelphia, Pa.
Rhode Island Tool Co., Providence, R. I.
Arthur T. Rutter & Co., 256 Broadway, New York.

F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.

I. S. Spencer's Sons, Guilford, Ct.
Universal Machine Screw Co., Hartford, Ct.

F. E. Wells & Sons Co., Greenfield, Mass.

Screws, Stop, Window Head—

National Mfg. Co., Sterling, Ill.

Screws, Thumb—

Chas. H. Besly & Co., 15-21 Clinton St., Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Blake & Johnson Co., Waterbury, Ct.

Chicago Screw Co., 2 No. Canal St., Chicago, Ill.

Detroit Screw Works, Detroit, Mich.

Hartford Machine Screw Co., Hartford, Ct.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Keystone Drop Forge Works, Chester, Pa.

Kirk-Latty Mfg. Co., Cleveland, O.

Franklin S. Miles Co., 205 Quarry St., Philadelphia, Pa.

Parker Wire Goods Co., Worcester, Mass.

St. Louis Screw Co., St. Louis, Mo.

J. H. Williams & Co., Brooklyn, N. Y.

Wire Goods Co., Worcester, Mass.

Wrightsville Hardware Co., Wrightsville, Pa.

Screws, Underplate—
American Rivet Co., New Haven, Ct.

Screws, Watch, Clock and Optical—
Hartford Machine Screw Co., Hartford, Ct.

Screws, Wood, Iron, Brass, &c.—

American Screw Co., Providence, R. I.

Eagle Lock Co., Terryville, Ct.

Grabler Mfg. Co., Cleveland, O.

C. E. Jennings & Co., 42 Murray St., New York.

Kirk-Latty Mfg. Co., Cleveland, O.

Chas. Parker Co., Meriden, Ct.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Wire Goods Co., Worcester, Mass.

Scribers, Metal—
Brown & Sharpe Mfg. Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

Scribes, Timber—
Bemis & Cail Hardware & Tool Co., Springfield, Mass.

Scroll Chucks—
(See Chucks, Lathe.)

Scroll Saws and Scroll Saw Blades—
(See Saws, Scroll, and Scroll Saw Blades.)

Scrub Brushes—
(See Brushes, Whitewash, Horse, &c.)

Scuffle Hoes—
(See Hoes, Scuffle.)

Scythe Stones—
(See Stones.)

Scythes—
Cronk & Carrier Mfg. Co., Elmira, N. Y.

Alfred Field & Co., 93 Chambers St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Seal Presses—
(See Presses, Seal.)

Seals, Case—
Acme Steel Goods Co., 2334-2340 Archer Ave., Chicago, Ill.

Seals, Machinery for Making Car—
Consolidated Press & Tool Co., Hastings, Mich.

Seals, Notary, Lodge, Corporation, &c.—
Geo. M. Ness, Jr., 61 Fulton St., New York.

Seals, Sealing Devices, &c.—
Theo. Hiertz Metal Co., St. Louis, Mo.

R. Woodman Mfg. & Supply Co., Boston.

Seals, Strap—
Cary Mfg. Co., 15-21 Roosevelt St., N. Y.

Searchlight Light Parts—
(See Automobile Parts.)

Sents, Buggy, Third—
Fernald Mfg. Co., North East, Pa.

Sents, Glass Valve—
F. E. Myers & Bro., Ashland, O.

Sents, Pressed Steel—
Avery Stamping Co., Cleveland, O.

Niles Corrugating Co., Niles, O.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Second Hand Machinery—
American Tool Works Co., Cincinnati, O.

Badger State Machine Co., Janesville, Wis.

Baird Machinery Co., Pittsburgh, Pa.

W. R. Beatty Machinery & Equipment Co., Pittsburgh, Pa.

Chas. Behlen, 72 Trinity Place, N. Y.

Brown & Zortman Machinery Co., Pittsburgh, Pa.

Carlin Machinery & Supply Co., Allegheny, Pa.

- Central Station Improvement Co., Monadnock Block, Chicago, Ill.
 Chicago House Wrecking Co., W. 35th and Iron Sts., Chicago, Ill.
 T. P. Conard & Co., 119 So. 4th St., Philadelphia, Pa.
 R. M. Cunliffe, 11th St. and Washington Ave., Philadelphia, Pa.
 Charles E. Dustin Co., 11 Broadway, New York.
 Eagle Metal & Supply Co., Brooklyn, N. Y.
 B. M. Everson, Pittsburgh, Pa.
 Garvin Machine Co., Spring & Varick Sts., New York.
 General Supply-Iron-Steel & Rail Co., Cincinnati, O.
 Hannon & Finton, Springfield, Mass.
 John Henning & Son, 1016-1022 E. Susquehanna Ave., Philadelphia, Pa.
 Hill, Clarke & Co., Boston, Mass.
 Hirsch Rolling Mill Co., St. Louis, Mo.
 Henry A. Hittner's Son Co., Huntington St. and Aramingo Ave., Philadelphia, Pa.
 W. C. Johnson & Sons Machinery Co., St. Louis, Mo.
 Lodge & Shipley Machine Tool Co., Cincinnati, O.
 J. J. McCabe, 14 Dey St., New York.
 McDowell & Co., Allegheny, Pa.
 McDowell, Stocker & Co., 59-61 So. Canal St., Chicago, Ill.
 Machinists' Supply Co., 16-18 So. Canal St., Chicago, Ill.
 Marshall & Hushart Machine Co., 62-64 So. Canal St., Chicago, Ill.
 Henry J. Miller's Sons, Bridgewater, Mass.
 Edgar M. Moore & Co., Pittsburgh, Pa.
 Motch & Merryweather Machinery Co., Cleveland, O.
 R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.
 New York Machinery Depot, 120 Broadway, New York.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Frank L. Patterson & Co., 25 Cortlandt St., New York.
 Perkins & Frecker, 136 Liberty St., N. Y.
 Peterson Construction Co., Pittsburgh, Pa.
 F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
 Plitt & Co., Real Estate Trust Bldg., Philadelphia, Pa.
 Power Equipment Co., Fisher Bldg., Chicago, Ill.
 Pratt & Whitney Co., Hartford, Ct.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 W. L. Sargent, Fitchburg, Mass.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
 L. F. Seyfert's Sons, Inc., 437 No. 3d St., Philadelphia, Pa.
 Shook & Fletcher, Birmingham, Ala.
 Southern Iron & Equipment Co., Atlanta, Ga.
 H. A. Stocker Machinery Co., 20 S. Clinton St., Chicago, Ill.
 Thomas & Lowe Machinery Co., Providence, R. I.
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
- Jacob Ullman, Buffalo, N. Y.
 Vanduyck, Churchill Co., 8 Dey St., N. Y.
 Walsh's Sons & Co., Newark, N. J.
 A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 C. C. Wormer Machinery Co., Detroit.
 Yearsley & Levene, 305 N. 3d St., Philadelphia, Pa.
 W. A. Zelnicker Supply Co., St. Louis.
- Section Liners—**
 (See Liners, Section.)
Seed Cases, Sowers—
 (See Cases, Sowers.)
Seeders, Broadcast—
 Cutaway Harrow Co., Higganum, Ct.
Seeders, Cherry—
 (See Stoners, Cherry.)
Seeders, Raisin—
 Enterprise Mfg. Co. of Pa., Philadelphia, Pa.
 Landers, Frary & Clark, New Britain, Ct.
Segments, Commutator—
 (See Commutator Bars and Segments.)
Selling Agents, Hardware—
 (See Agents, Hardware Manufacturers.)
Separators, Cream, Parts for—
 Crosby Co., Buffalo, N. Y.
 John R. Keim Mills, Inc., Buffalo, N. Y.
Separators, Magnetic—
 Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
 J. W. Paxson Co., 1021 No. Delaware Ave., Philadelphia, Pa.
 J. D. Smith Foundry Supply Co., Cleveland, O.
Separators, Oil—
 American Tool & Machine Co., Boston, Mass.
 American Tool Works Co., Cincinnati, O.
 Burt Mfg. Co., Akron, O.
 Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
 Hershey Machine & Foundry Co., Manheim, Pa.
 National Separator & Machine Co., Concord, N. H.
 Frank L. Patterson & Co., 25 Cortlandt St., New York.
Separators, Steam—
 Best Mfg. Co., Pittsburgh, Pa.
 Julian D'Eate Co., Boston, Mass.
 Exeter Machine Works, Exeter, N. H.
 Harrison Safety Boiler Works, 3194 N. 17th St., Philadelphia, Pa.
 Hershey Machine & Foundry Co., Manheim, Pa.
 John T. Lindstrom, Allentown, Pa.
 R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.
 W. H. Nicholson & Co., Wilkes-Barre, Pa.
 Frank L. Patterson & Co., 25 Cortlandt St., New York.
 Pittsburgh Gage & Water Supply Co., Pittsburgh, Pa.
 Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.
 Riter-Conley Mfg. Co., Pittsburgh, Pa.
Servers, Salad—
 American Cutlery Co., Chicago, Ill.
Set Screws—
 (See Screws, Cap and Set.)
Setts, Assorted, Lathe Tool and Fixture—
 O. K. Tool Holder Co., Shelton, Ct.

- Sets, Brad—**
L. S. Starrett Co., Athol, Mass.
- Sets, Child's Kitchen Carving—**
Landers, Erary & Clark, New Britain, Ct.
- Sets, Combination—**
L. S. Starrett Co., Athol, Mass.
- Sets, Communion, Silver and Silver Plated—**
International Silver Co., Meriden, Ct.
- Sets, Door, Screen and Storm—**
National Mfg. Co., Sterling, Ill.
- Sets, Garden Tool—**
American Fork & Hoe Co., Cleveland, O.
Arcade Mfg. Co., Freeport, Ill.
Wrightsville Hardware Co., Wrightsville, Pa.
- Sets, Hook—**
Eyelet Tool Co., Boston, Mass.
- Sets, Nail—**
Brown & Sharpe Mfg. Co., Providence, R. I.
Buck Bros. Millbury, Mass.
Ducharmes & Co., Shelburne Falls, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Hartford Machine Screw Co., Hartford, Ct.
- Sets, Saw—**
Irwin Auger Bit Co., Wilmington, O.
C. E. Jennings & Co., 42 Murray St., N. Y.
Keystone Mfg. Co., Buffalo, N. Y.
Kilborn & Bishop Co., New Haven, Ct.
Krauter & Co., Inc., Newark, N. J.
Massachusetts Saw Works, Chicopee, Mass.
- Sets, Mayhew Co., Shelburne Falls, Mass.**
- Snell Mfg. Co., Fiskdale, Mass.**
- Stanley Rule & Level Co., New Britain, Ct.**
- L. S. Starrett Co., Athol, Mass.**
- Storm Mfg. Co., Newark, N. J.**
- Tuck Mfg. Co., Brockton, Mass.**
- Sets, Rivet—**
Eyelet Tool Co., Boston, Mass.
- Niagara Machine & Tool Co., Buffalo, N. Y.**
- Peck, Stow & Wilcox Co., 27 Murray St., New York.**
- Sets, Saw—**
E. C. Atkins & Co., Indianapolis, Ind.
Henry Disston & Sons, Philadelphia, Pa.
John H. Graham & Co., 113 Chambers St., New York.
Kilborn & Bishop Co., New Haven, Ct.
F. E. Kohler & Co., Canton, O.
Chas. Morrill, 27 Broadway, N. Y.
National Saw Co., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Simonds Mfg. Co., Fitchburg, Mass.**
- Smith & Hemenway Co., 108-110 Duane St., New York.**
- Taintor Mfg. Co., 113 Chambers St., N. Y.**
- Sets, Screw Driver and Tool—**
John S. Fray & Co., Bridgeport, Ct.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., 28 Warren St., N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Sets, Shaving—**
Smith & Hemenway Co., 108-110 Duane St., New York.
- Sets, Soldering—**
Arcade Mfg. Co., Freeport, Ill.
W. L. Barrett, Bristol, Ct.
- Fletcher Terry & Co., Forestville, Ct.**
- Millers Falls Co., 28 Warren St., N. Y.**
- Peck, Stow & Wilcox Co., 27 Murray St., New York.**
- Smith & Hemenway Co., 108-110 Duane St., New York.**
- Sets, Tea, Coffee, Curling, Manicure, Smokers', &c.—**
Silver and Silver Plated—
International Silver Co., Meriden, Ct.
- Sets, Tool, Hollow Handle—**
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
- John S. Fray & Co., Bridgeport, Ct.**
- Goodell-Pratt Co., Greenfield, Mass.**
- C. E. Jennings & Co., 42 Murray St., N. Y.**
- Millers Falls Co., 28 Warren St., N. Y.**
- Settees, Lawn—**
(See Chairs and Settees, Lawn.)
- Setting and Filing Machines, Saw—**
E. C. Atkins & Co., Indianapolis, Ind.
Detrick & Harvey Machine Co., Baltimore.
- Henry Disston & Sons, Philadelphia, Pa.**
- Hess Machine Works, 25th & Callowhill Sts., Philadelphia, Pa.**
- Setting and Filing Machines, Band Saw—**
Crescent Machine Co., Leetonia, O.
- Sewer Castings—**
(See Iron Work, Builders'.)
- Sewer Connections—**
(See Boots.)
- Sewer Gratings—**
(See Iron Work, Builders'.)
- Sewer Traps—**
Kennedy Valve Mfg. Co., 57 Beekman St., New York.
- Sewing Machines—**
National Sewing Machine Co., Belvidere, Ill.
- Sextants—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
Riggs & Bro., 310 Market St., Philadelphia, Pa.
- Shackles, Chain—**
Standard Chain Co., Pittsburgh, Pa.
- Shackles, Guy Rope—**
A. Leschen & Sons Rope Co., St. Louis, Mo.
- Shackles, Shaft, Safety—**
A. Leschen & Sons Rope Co., St. Louis.
- Shade Cord—**
(See Cord, Shade and Ventilator.)
- Shade Pulleys—**
(See Pulleys, Shade.)
- Shades, Metal, Electric Light—**
Boston Pressed Metal Co., Worcester, Mass.
- Otto Konigslow Mfg. Co., Cleveland, O.**
- Shaft Adjusters, Hangers, &c.—**
(See Adjusters, Hangers, &c.)
- Shaft Levels—**
(See Levels, Shaft.)
- Shaft Straightening Machinery—**
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
Bradford Mach. Tool Co., Cincinnati, O.
Niles-Bement-Fond Co., 111 Broadway, New York.
- Watson-Stillman Co., 26 Cortlandt St., New York.**
- Wicks Bros., Saginaw, Mich.**

Shaft Trimmings, Leather—
(See Trimmings, Shaft, Leather.)**Shafting—**American Steel & Wire Co., The Rookery,
Chicago, Ill.American Tool & Machine Co., Boston.
Bethlehem Steel Co., So. Bethlehem, Pa.
Birmingham Iron Foundry, Lerby, Ct.
Cleveland City Forge & Iron Co., Cleve-
land, O.Columbia Bridge Co., Pittsburgh, Pa.
Columbia Steel & Shafting Co., Pitts-
burgh, Pa.Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.
Falls Hollow Staybolt Co., Cuyahoga
Falls, O.Farrel Foundry & Mach. Co., Ansonia, Ct.
Fawcus Machine Co., Pittsburgh, Pa.
Finished Steel Co., Youngstown, O.
Hirsch Rolling Mill Co., St. Louis, Mo.
Jeffrey Mfg. Co., Columbus, O.Jones & Laughlin Steel Co., Pittsburgh.
Poole Engineering & Machine Co., Bal-
timore, Md.Republic Iron & Steel Co., Pittsburgh, Pa.
Sundberg, Kropp & Co., 1121-1131 W.
21st St., Chicago, Ill.Tindal-Morris Co., Eddystone, Pa.
Titusville Forge Co., Titusville, Pa.Warsaw Elevator Co., Warsaw, N. Y.
Webster Mfg. Co., 1075-1111 W. 15th St.,
Chicago, Ill.**MERCHANTS.**Baird Machinery Co., Pittsburgh, Pa.
Bourne-Fuller Co., Cleveland, O.H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.W. E. Caldwell Co., Louisville, Ky.
Charter Gas Engine Co., Sterling, Ill.W. P. Davis Machine Co., Rochester, N. Y.
Denman & Davis, 85-91 Lafayette St.,
New York.Dilworth, Gilbert & Towne, Inc., 35-37
Wooster St., New York.

Dodge Mfg. Co., Mishawaka, Ind.

Barclay M. Everson, Pittsburgh, Pa.
Falls Rivet & Machine Co., Cuyahoga
Falls, O.General Supply-Iron-Steel & Rail Co.,
Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.

C. B. Houston & Co., Girard Bldg.,
Philadelphia, Pa.

Humphrey Machine Co., Keene, N. H.

Geo. Nash Co., 24 S. Clinton St., Chi-
cago, Ill.F. R. Phillips & Sons Co., Pennsylvania
Bldg., Philadelphia, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18 Milwaukee
Ave., Chicago, Ill.Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.L. F. Seyfert & Sons, Inc., 437-441 No. 3d
St., Philadelphia, Pa.Charles G. Stevens Co., 60 So. Canal St.,
Chicago, Ill.

Walsh's Sons & Co., Newark, N. J.

Edgar T. Ward & Sons, Boston, Mass.

Wickes Bros., Saginaw, Mich.

Woodward, Wight & Co., Ltd., New Or-
leans, La.**Shafting, Cold Drawn—**
C. Pardee Works, Perth Amboy, N. J.**Shafting Collars, Oilers—**
(See Collars, Oilers.)**Shafting, Flexible—**Chicago Flexible Shaft Co., 124 La Salle
Ave., Chicago, Ill.

Coates Clipper Mfg. Co., Worcester, Mass.

Gem Mfg. Co., Pittsburgh, Pa.

Stow Flexible Shaft Co., 26th and Callow-
hill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

**Shafting, Hollow, Charcoal,
Iron and Steel—**Falls Hollow Staybolt Co., Cuyahoga
Falls, O.**Shafting, Polished—**

Columbia Bridge Co., Pittsburgh, Pa.

Columbia Steel & Shafting Co., Pitts-
burgh, Pa.

Finished Steel Co., Youngstown, O.

C. Pardee Works, Perth Amboy, N. J.

Shafts, Automobile Crank—

Bethlehem Steel Co., So. Bethlehem, Pa.

Thomas Prosser & Son, 26 Platt St., N. Y.

Tindal-Morris Co., Eddystone, Pa.

A. P. Wittman & Co., Philadelphia, Pa.

**Shafts, Automobile Crank,
Finished to Order—**

Bethlehem Steel Co., So. Bethlehem, Pa.

Thomas Prosser & Son, 26 Platt St., N. Y.

Tindal-Morris Co., Eddystone, Pa.

Shafts, Cement Mill—

Bethlehem Steel Co., So. Bethlehem, Pa.

Thomas Prosser & Son, 26 Platt St., N. Y.

**Shafts, Chrome Nickel Steel
Crank—**

Bethlehem Steel Co., So. Bethlehem, Pa.

Thomas Prosser & Son, 26 Platt St., N. Y.

Tindal-Morris Co., Eddystone, Pa.

Shafts, Crank—

Bancroft & Co., Philadelphia, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Carnegie Steel Co., Pittsburgh, Pa.

Chrome Steel Works, Chrome, N. J.

Cleveland City Forge & Iron Co., Cleve-
land, Ohio.

Columbia Bridge Co., Pittsburgh, Pa.

Columbia Steel & Shafting Co., Pitts-
burgh, Pa.

Erie Forge Co., Erie, Pa.

Keystone Drop Forge Works, Chester, Pa.

Poole Engineering & Machine Co., Balti-
more, Md.

Portsmouth Forge, Portsmouth, N. H.

Thomas Prosser & Son, 26 Platt St., N. Y.

Richmond Forgings Corporation, Rich-
mond, Va.Sundberg, Kropp & Co., 1121-1131 W.
21st St., Chicago, Ill.

Titusville Forge Co., Titusville, Pa.
A. P. Wittman & Co., Philadelphia, Pa.

Shafts, Phosphor Bronze—
Riverside Metal Co., Riverside, N. J.

Shafts, Rough Turned—
Columbus Forge & Iron Co., Columbus, O.
Thomas Prosser & Son, 26 Platt St., N.Y.

Shafts, Slip or Telescope—
Gem Mfg. Co., Pittsburgh, Pa.

Shaker Sails—
(See Sails, Shaker.)

Shakers, Drink—
Eric Specialty Co., Erie, Pa.

Shakers, Stove—
S. Cheney & Son, Manlius, N. Y.
Wrightsville Hardware Co., Wrightsville, Pa.

Shank Machinery, Steel—
Henry Perkins Co., Bridgewater, Mass.

Shapers—
American Tool Works Co., Cincinnati, O.

Wm. Barker & Co., Cincinnati, O.
Boynton & Plummer, Worcester, Mass.

Cincinnati Shaper Co., Cincinnati, O.
Crescent Machine Co., Leetonia, O.

Mark Flather Planer Co., Nashua, N. H.
Garvin Machine Co., Spring and Varick

Sts., New York.
Gould & Eberhardt, Newark, N. J.

Hendey Machine Co., Torrington, Ct.
Morton Mfg. Co., Muskegon Heights,

Mich.
New Haven Mfg. Co., New Haven, Ct.

Newton Machine Tool Works, 23d & Vine
Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Potter & Johnston Machine Co., Paw-
tucket, R. I.

Powell Tool Co., Worcester, Mass.
Queen City Machine Tool Co., Cincin-
nati, O.

J. Steptoe Shaper Co., Cincinnati, O.
Stockbridge Machine Co., Worcester,

Mass.

MERCHANTS.

Baird Machinery Co., Pittsburgh, Pa.
Brown & Zortman Machinery Co., Pitts-
burgh, Pa.

Hill, Clarke & Co., Boston, Mass.
W. C. Johnson & Sons Machinery Co.,

St. Louis, Mo.
McDowell, Stocker & Co., 59 S. Canal

St., Chicago, Ill.
J. J. McCabe, 14 Dey St., New York.

Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Marshall & Hushart Machinery Co.,
62-64 So. Canal St., Chicago, Ill.

Motch & Merryweather Machinery Co.,
Cleveland, O.

Prentiss Tool & Supply Co., 115 Liberty
St., New York.

Sebastian Lathe Co., Cincinnati, O.
L. F. Seyfert's Sons, Inc., 437-441 No. 3d

St., Philadelphia, Pa.
H. A. Stocker Machinery Co., 20 S. Clin-
ton St., Chicago, Ill.

Frank Toomey, 127-131 N. 3d St., Phila-
delphia, Pa.

Jacob Ullman, Buffalo, N. Y.
Vandyck Churchill Co., 8 Dey St., N. Y.

A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.

C. C. Wormer Machinery Co., Detroit,
Mich.

Shapers, Attachments for—
Stockbridge Machine Co., Worcester, Mass.

Shapers, Draw-Cut Iron—
Morton Mfg. Co., Muskegon Heights,

Mich.
Shapers, Open Side—
Cincinnati Shaper Co., Cincinnati, O.

**Shapers, Traverse. Single
or Double Head—**
Cincinnati Shaper Co., Cincinnati, O.

Hendey Machine Co., Torrington, Ct.
Morton Mfg. Co., Muskegon Heights,

Mich.
Newton Machine Tool Works, 23 and
Vine Sts., Philadelphia, Pa.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Shapers, Universal—
Potter & Johnston Machine Co., Paw-
tucket, R. I.

Shapes, Agricultural—
Avery Stamping Co., Cleveland, O.

Elyria Iron & Steel Co., Elyria, O.
Harlow Spring Co., Kalamazoo, Mich.

Interstate Iron & Steel Co., First Na-
tional Bank Bldg., Chicago, Ill.

Jones & Laughlin Steel Co., Pittsburgh.
Republic Iron & Steel Co., Pittsburgh, Pa.

Shapes, Cold Drawn—
Avery Stamping Co., Cleveland, O.

Columbia Bridge Co., Pittsburgh, Pa.
Columbia Steel & Shafting Co., Pitts-
burgh, Pa.

Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.

Otto Konigslow Mfg. Co., Cleveland, O.
C. Pardee Works, Perth Amboy, N. J.

**Shapes, Cold Drawn and
Polished—**
Columbia Bridge Co., Pittsburgh, Pa.

Columbia Steel & Shafting Co., Pitts-
burgh, Pa.

Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.

Shapes, Pressed Steel—
American Pulley Co., 29th and Bristol

Sts., Philadelphia, Pa.
Avery Stamping Co., Cleveland, O.

Bethlehem Steel Co., So. Bethlehem, Pa.
John R. Keim Mills, Inc., Buffalo, N. Y.

Otto Konigslow Mfg. Co., Cleveland, O.
H. A. Mathews Mfg. Co., Seymour, Ct.

Pressed Steel Tank Co., Milwaukee, Wis.
Thomas Prosser & Son, 26 Platt St., N.Y.

**Shapes, Sheet Steel, Cut to
Order—**
Avery Stamping Co., Cleveland, O.

Janney, Steinmetz & Co., 741 Drexel
Bldg., Philadelphia, Pa.

R. C. Jenkinson & Co., Newark, N. J.

**Shapes, Special, High Car-
bon Steel—**
Avery Stamping Co., Cleveland, O.

Bethlehem Steel Co., So. Bethlehem, Pa.
Kidd Bros. & Burgher Steel Wire Co.,

Aliquippa, Pa.
Thomas Prosser & Son, 26 Platt St., N.Y.

Sharpeners, Dowel—
Stanley Rule & Level Co., New Britain, Ct.

Sharpeners, Knife—
American Emery Wheel Works, Provi-
dence, R. I.

Carborundum Co., Niagara Falls, N. Y.

Alfred Field & Co., 93 Chambers St., New York.

Millers Falls Co., 28 Warren Street, New York.

Pike Mfg. Co., Pike, N. H.
Louis Sacks, Newark, N. J.
Star Corundum Wheel Co., Detroit, Mich.
Sterling Emery Wheel Mfg. Co., Tiffin, O.

Sharpeners, Lawn Mower—
Osborn Mfg. Co., Cleveland, O.
Smith & Hemenway Co., 108-110 Duane St., New York.

Sharpeners, Metal Saw, Automatic—
Covel Mfg. Co., Fisher Bldg., Chicago, Ill.

Sharpeners, Mower Knife—
Cutaway Harrow Co., Higganum, Ct.

Sharpeners, Rock Drill Steel—

Ingersoll-Rand Co., 11 Broadway, N. Y.

Sharpeners, Saw—
E. C. Atkins & Co., Indianapolis, Ind.
Covel Mfg. Co., Fisher Bldg., Chicago, Ill.

Diamond Machine Co., Providence, R. I.
Henry Diston & Sons, Philadelphia, Pa.
Wickes Bros., Saginaw, Mich.

Sharpeners, Saw, Automatic—

E. C. Atkins Co., Indianapolis, Ind.
Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Sharpeners, Skate—
Osborn Mfg. Co., Cleveland, O.

Pike Mfg. Co., Pike, N. H.
Smith & Hemenway Co., 108-110 Duane St., New York.

Shavers and Slotters, Wood Screw—

Asa S. Cook Co., Hartford, Ct.

Shavers, Beef—
 (See Cutters, Smoked Beef.)

Shavers, Ice—
 (See Ice Harvesting Tools.)

Shaves, Coopers—
L. & I. J. White Co., Buffalo, N. Y.

Shaves, Ice—
Arcade Mfg. Co., Freeport, Ill.

Enterprise Mfg. Co., of Pa., Philadelphia, Pa.

Erie Specialty Co., Erie, Pa.

Griswold Mfg. Co., Erie, Pa.

North Bros. Mfg. Co., Philadelphia, Pa.

L. & I. J. White Co., Buffalo, N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

Shaves, Spoke—
Chapin-Stephens Co., Pine Meadow, Ct.

Goodell-Pratt Co., Greenfield, Mass.

Millers Falls Co., 28 Warren St., N. Y.

Stanley Rule & Level Co., New Britain, Ct.

Union Mfg. Co., New Britain, Ct.

L. & I. J. White Co., Buffalo, N. Y.

Shaves, Tobacco—
Landers, Frary & Clark, New Britain, Ct.

North Bros. Mfg. Co., Philadelphia, Pa.

Shaving Cups, Silver Plated—
 (See Cups, Children's Shaving, Silver Plated.)

Shaving Machines, Screw—
arlin Machine Co., Spring & Varick Sts., New York.

Hartford Machine Screw Co., Hartford, Ct.

Pratt & Whitney Co., Hartford, Ct.

Shawl Strap Handles—
 (See Baggage Hardware.)

Shear Blades, Metal—
 (See Blades, Metal Shear.)

Shear, Steel, Double—
 (See Steel, Double Shears.)

Shearing Machines, Hand—
Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.

Badger's State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.

New Doty Mfg. Co., Janesville, Wis.

Niagara Machine & Tool Works, Buffalo, N. Y.

Niles-Bement-Pond Co., 111 Broadway, New York.

Watson-Stillman Co., 26 Cortlandt St., New York.

Shearing Metal—
 (See Sheet Metal Work.)

Shears, Alligator—
Badger State Machine Co., Janesville, Wis.

Birmingham Iron Foundry, Derby, Ct.

Thomas Carlin's Sons Co., Allegheny, Pa.

Cleveland Punch & Shear Works Co., Cleveland, O.

Excelsior Tool & Machine Co., E. St. Louis, Ill.

Hilles & Jones Co., Wilmington, Del.

Morgan Engineering Co., Alliance, O.

National Machinery Co., Tiffin, O.

New Doty Mfg. Co., Janesville, Wis.

Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia, Pa.

United Engineering & Foundry Co., Pittsburgh, Pa.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Watson-Stillman Co., 26 Cortlandt St., New York.

Shears and Scissors—

Acme Shear Co., Bridgeport, Ct.

Atlas Shear Co., Bridgeport, Ct.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Alfred Field & Co., 93 Chambers St., New York.

R. Heinisch's Sons Co., Newark, N. J.

Adolph Kastor & Bros., 109 Duane St., New York.

National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.

Smith & Hemenway Co., 108-110 Duane St., New York.

Waterville Cutlery Co., Waterville, Ct.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

J. Wiss & Sons Co., Newark, N. J.

Shears and Snips, Dental—
 (See also Scissors.)

R. Heinisch's Sons Co., Newark, N. J.

National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.

Schuchardt & Schutte, 136 Liberty St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

J. Wiss & Sons Co., Newark, N. J.

Shears and Snips, Tanners—
Acme Shear Co., Bridgeport, Ct.

Atlas Shear Co., Bridgeport, Ct.

Badger State Machine Co., Janesville, Wis.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

R. Heinisch's Sons Co., Newark, N. J.

Kilborn & Bishop Co., New Haven, Ct.

National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.

Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Smith & Hemenway Co., 108-110 Duane St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

J. Wiss & Sons Co., Newark, N. J.

Shears, Bankers' and Paper Hangers'—

Acme Shear Co., Bridgeport, Ct.

Atlas Shear Co., Bridgeport, Ct.

Alfred Field & Co., 93 Chambers St., New York.

R. Heinisch's Sons Co., Newark, N. J.

National Cutlery Co., Philadelphia, Pa.

Smith & Hemenway Co., 108-110 Duane St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

J. Wiss & Sons Co., Newark, N. J.

Shears, Barbers'—

Acme Shear Co., Bridgeport, Ct.

Atlas Shear Co., Bridgeport, Ct.

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Alfred Field & Co., 93 Chambers St., New York.

R. Heinisch's Sons Co., Newark, N. J.

National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.

Smith & Hemenway Co., 108-110 Duane St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

J. Wiss & Sons Co., Newark, N. J.

Shears, Beam and Channel—

Alliance Machine Co., Alliance, O.

Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.

Badger State Machine Co., Janesville, Wis.

Bertsch & Co., Cambridge City, Ind.

Cincinnati Punch & Shear Co., Cincinnati, O.

Cleveland Punch & Shear Works Co., Cleveland, O.

Hilles & Jones Co., Wilmington, Del.

George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.

Long & Allstatter Co., Hamilton, O.

Morgan Engineering Co., Alliance, O.

New Doty Mfg. Co., Janesville, Wis.

Niles-Bement-Pond Co., 111 Broadway, New York.

Henry Pels & Co., 66 Broad St., N. Y.

Royersford Foundry & Machine Co., Royersford, Pa.

Schuchardt & Schutte, 136 Liberty St., New York.

United Engineering & Foundry Co., Pittsburgh, Pa.

Watson-Stillman Co., 26 Cortlandt St., New York.

Williams, White & Co., Moline, Ill.

Shears, Belting—

Schuchardt & Schutte, 136 Liberty St., New York.

Shears, Candy—

R. Heinisch's Sons Co., Newark, N. J.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

J. Wiss & Sons Co., Newark, N. J.

Shears, Circular Metal—

Adriance Machine Works, Brooklyn, N. Y.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Gould & Eberhardt, Newark, N. J.

R. Heinisch's Sons Co., Newark, N. J.

Niagara Machine & Tool Works, Buffalo, N. Y.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Shears, Editors' or Desk—

R. Heinisch's Sons Co., Newark, N. J.

J. Wiss & Sons Co., Newark, N. J.

Shears, Electric—

Morgan Engineering Co., Alliance, O.

United Engineering & Foundry Co., Pittsburgh, Pa.

Shears, Electricians'—

R. Heinisch's Sons Co., Newark, N. J.

Smith & Hemenway Co., 108-110 Duane St., New York.

Shears, Flying—

Morgan Construction Co., Worcester, Mass.

Shears, Fruit and Flower Gathering—

Columbia Grey Iron Co., Columbia, Pa.

Shears, Game or Bird—

Landers, Frary & Clark, New Britain, Ct.

Shears, Garden—

Smith & Hemenway Co., 108-110 Duane St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Shears, Glass—

R. Heinisch's Sons Co., Newark, N. J.

J. Wiss & Sons Co., Newark, N. J.

Shears, Grape—

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Smith & Hemenway Co., 108-110 Duane St., New York.

(See also Scissors, Grape.)

Shears, Grass and Lawn—

Columbian Cutlery Co., Reading, Pa.

Cronk & Carrier Mfg. Co., Elmira, N. Y.

Geo. E. Gay, Augusta, Me.

Smith & Hemenway Co., 108-110 Duane St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Shears, Hand Power Beam—

Henry Pels & Co., 66 Broad St., N. Y.

Shears, Hedge—

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Wilkinson Shear & Cutlery Co., Reading, Pa.

Shears, Horse and Mule—

Columbian Cutlery Co., Reading, Pa.

Smith & Hemenway Co., 108-110 Duane St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

Shears, Hydraulic—

Alliance Machine Co., Alliance, O.

Bertsch & Co., Cambridge City, Ind.

- A. L. Henderer's Sons, Wilmington, Del.
 Mackintosh, Hemphill & Co., Pittsburgh.
 Mesta Machine Co., Pittsburgh, Pa.
 Morgan Construction Co., Worcester, Mass.
 Morgan Engineering Co., Alliance, O.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Watson-Stillman Co., 26 Cortlandt St., New York.
 Williams, White & Co., Moline, Ill.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- Shears, Metal, Hand—**
 Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.
 Badger State Machine Co., Janesville, Wis.
 R. M. Clough, Tolland, Ct.
 Goodall-Pratt Co., Greenfield, Mass.
 Kimball Bros. & Sprague, Brockton, Mass.
 Novelty Iron Works, Dubuque, Ia.
 Whitcomb-Blaisdell Machine Tool Co., Worcester, Mass.
- Shears, Metal Squaring and Circle—**
 Adriance Machine Works, Brooklyn, N. Y.
 Armstrong-Blum Mfg. Co., 109 N. Francisco Ave., Chicago, Ill.
 Badger State Machine Co., Janesville, Wis.
 Bertsch & Co., Cambridge City, Ind.
 Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
 Blake & Johnson Co., Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Buffalo Forge Co., Buffalo, N. Y.
 Chandler & Farquhar Co., Boston, Mass.
 Cincinnati Punch & Shear Co., Cincinnati, O.
 Cleveland Punch & Shear Works Co., Cleveland, O.
 Consolidated Press & Tool Co., Hastings, Mich.
 Excelsior Tool & Machine Co., E. St. Louis, Ill.
 Ferracute Machine Co., Bridgeton, N. J.
 W. H. Hibbard Mfg. Co., Brooklyn, N. Y.
 Hilles & Jones Co., Wilmington, Del.
 George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.
 R. E. Kidder, Worcester, Mass.
 Chas. Leffler & Co., Brooklyn, N. Y.
 Lewis Foundry & Machine Co., Groveton, Pa.
 J. Howard Lingle Co., Bellefonte, Pa.
 Long & Allstatter Co., Hamilton, O.
 Mackintosh, Hemphill & Co., Pittsburgh.
 Morgan Engineering Co., Alliance, O.
 R. B. Newbold & Son Co., Norristown, Pa.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 George A. Ohl & Co., Newark, N. J.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 Smith & Egan Mfg. Co., Bridgeport, Ct.
 United Engineering & Foundry Co., Pittsburgh, Pa.
- Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Watson-Stillman Co., 26 Cortlandt St., New York.
 Williams, White & Co., Moline, Ill.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- MERCHANTS.**
 Baird Machinery Co., Pittsburgh, Pa.
 W. R. Beatty Machinery & Equipment Co., Pittsburgh, Pa.
 Barclay M. Everson, Pittsburgh, Pa.
 Hill, Clarke & Co., Boston, Mass.
 Irving Mfg. & Tool Co., 157 Chambers St., New York.
 Machinists' Supply Co., 16-18 So. Canal St., Chicago, Ill.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Merchant & Evans Co., Philadelphia, Pa.
 Motch & Merryweather Machinery Co., Cleveland, O.
 New York Machinery Depot, 120 Broadway, New York.
 F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.
 Prentiss Tool & Supply Co., 115 Liberty St., New York.
 Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
 L. F. Seyfert's Sons, Inc., 437-441 No. 3d St., Philadelphia, Pa.
 Frank Toomey, 127-131 No. 3d St., Philadelphia, Pa.
 Vandeyck, Churchill Co., 8 Day St., N. Y.
 A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.
 Wickes Bros., Saginaw, Mich.
- Shears, Paper Hangers'—**
 (See Shears, Bankers.)
- Shears, Plate Beveling—**
 Badger State Machine Co., Janesville, Wis.
 E. W. Bliss Co., Brooklyn, N. Y.
 Cincinnati Punch & Shear Co., Cincinnati, O.
 Cleveland Punch & Shear Works Co., Cleveland, O.
 Ferracute Machine Co., Bridgeton, N. J.
 Hilles & Jones Co., Wilmington, Del.
 Long & Allstatter Co., Hamilton, O.
 New Doty Mfg. Co., Janesville, Wis.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Williams, White & Co., Moline, Ill.
 Schuchardt & Schutte, 136 Liberty St., New York.
- Shears, Portable Metal—**
 Schuchardt & Schutte, 136 Liberty St., New York.
- Shears, Pruning—**
 Columbia Grey Iron Co., Columbia, Pa.
 Columbian Cutlery Co., Reading, Pa.
 Cronk & Carrier Mfg. Co., Elmira, N. Y.
 John H. Graham & Co., 113 Chambers St., New York.
 R. Heinisch's Sons Co., Newark, N. J.
 National Cutlery Co., 3d St. and Lehigh Ave., Philadelphia, Pa.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Smith & Hemenway Co., 108-110 Duane St., New York.

Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.

J. Wiss & Sons Co., Newark, N. J.

Shears, Roaching—

R. Heinisch's Sons Co., Newark, N. J.

J. Wiss & Sons Co., Newark, N. J.

Shears, Rotary—

Bethlehem Foundry & Machine Co.,

South Bethlehem, Pa.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., Hastings,

Mich.

Detrick & Harvey Machine Co., Balti-

more, Md.

Ferracute Machine Co., Bridgeton, N. J.

Chas. Leffler & Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo,

N. Y.

Niles-Bement-Pond Co., 111 Broadway,

New York.

George A. Ohl & Co., Newark, N. J.

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

United Engineering & Foundry Co., Pitts-

burgh, Pa.

Waterbury Farrel Foundry & Machine

Co., Waterbury, Ct.

Watson-Stilman Co., 26 Cortlandt St.,

New York.

Shears, Rotary Circle Cut-

ting—

E. W. Bliss Co., Brooklyn, N. Y.

Consolidated Press & Tool Co., Hastings,

Mich.

Ferracute Machine Co., Bridgeton, N. J.

R. S. Newbold & Son Co., Norristown,

Pa.

Niagara Machine & Tool Works, Buffalo,

N. Y.

George A. Ohl & Co., Newark, N. J.

Waterbury Farrel Foundry & Machine

Co., Waterbury, Ct.

Shears, Rubber and

Leather—

R. Heinisch's Sons Co., Newark, N. J.

National Cutlery Co., 3d St. and Lehigh

Ave., Philadelphia, Pa.

Smith & Hemenway Co., 108-110 Duane

St., New York.

J. Wiss & Sons Co., Newark, N. J.

Shears, Sheep—

Columbian Cutlery Co., Reading, Pa.

Alfred Field & Co., 93 Chambers St.,

New York.

Wiebusch & Hilger, Ltd., 9-15 Murray

St., New York.

Shears, Slitting—

Armstrong-Blum Mfg. Co., 109 N. Fran-

cisco Ave., Chicago, Ill.

Badger State Machine Co., Janesville,

Wis.

Blake & Johnson Co., Waterbury, Ct.

E. W. Bliss Co., Brooklyn, N. Y.

Cincinnati Punch & Shear Co., Cincin-

nati, O.

Cleveland Punch & Shear Works Co.,

Cleveland, O.

Consolidated Press & Tool Co., Hastings,

Mich.

Ferracute Machine Co., Bridgeton, N. J.

Hilles & Jones Co., Wilmington, Del.

C. S. Merick & Co., New Haven, Ct.

Morgan Engineering Co., Alliance, O.

R. S. Newbold & Son Co., Norristown,

Pa.

New Doty Mfg. Co., Janesville, Wis.

Niagara Machine & Tool Co., Buffalo,

N. Y.

Niles-Bement-Pond Co., 111 Broadway,

New York.

George A. Ohl & Co., Newark, N. J.

United Engineering & Foundry Co., Pitts-

burgh, Pa.

Waterbury Farrel Foundry & Machine

Co., Waterbury, Ct.

Shears, Slitting, Hand—

Armstrong-Blum Mfg. Co., 109 N. Fran-

cisco Ave., Chicago, Ill.

Badger State Machine Co., Janesville,

Wis.

Shears, Straight, Metal—

(See Shears and Snips, Tinners.)

Shears, Tailors—

R. Heinisch's Sons Co., Newark, N. J.

National Cutlery Co., 3d St. and Lehigh

Ave., Philadelphia, Pa.

Wiebusch & Hilger, Ltd., 9-15 Murray

St., New York.

J. Wiss & Sons Co., Newark, N. J.

Shears, Upholsterers' and

Carpet—

J. Wiss & Sons Co., Newark, N. J.

Shears, Wire—

J. M. King & Co., Waterford, N. Y.

Shears, Wire Nail Scrap—

Turner, Vaughn & Taylor Co., Cuyahoga

Falls, O.

Sheathing, Copper—

Hendricks Bros., 49 Cliff St., New York.

Merchant & Evans Co., Philadelphia, Pa.

Sheathing Paper—

(See Paper, Sheathing.)

Sheaves, Chain—

Poole Engineering & Machine Co., Balti-

more, Md.

Sheaves, Door—

Peck, Stow & Wilcox Co., 27 Murray St.,

New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette

St., New York.

I. S. Spencer's Sons, Guilford, Ct.

W. & J. Tiebout, 118 Chambers St., N. Y.

Sheaves, Hoisting—

Boston & Lockport Block Co., Boston.

Broderick & Bascom Rope Co., St. Louis.

W. E. Caldwell Co., Inc., Louisville, Ky.

A. Leschen & Sons Rope Co., St. Louis.

Pennsylvania Engineering Works, New

Castle, Pa.

Sheaves, Power Transmis-

sion—

American Well Works, Aurora, Ill.

Bethlehem Foundry & Machine Co.,

South Bethlehem, Pa.

Broderick & Bascom Rope Co., St. Louis.

Brown Hoisting Machinery Co., Cleveland.

H. W. Caldwell & Son, Western Ave. and

17th St., Chicago, Ill.

Thos. Carlin's Sons, Allegheny, Pa.

W. E. Caldwell Co., Inc., Louisville, Ky.

Geo. V. Cresson Co., 18th St. and Alle-

gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Falls River & Machine Co., Cuyahoga

Falls, O.

Jeffrey Mfg. Co., Columbus, O.

Jones & Laughlin Steel Co., Pittsburg,

A. Leschen & Sons Rope Co., St. Louis.
Nesta Machine Co., Pittsburgh, Pa.
Pennsylvania Engineering Works, New Castle, Pa.
Poole Engineering & Machine Co., Baltimore, Md.
Soule Steam Feed Works, Meridian, Miss.
Sheaves, Roller Bushed and Ball Bearing—
Thomas Laughlin Co., Portland, Me.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Sheaves, Sash—
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Sheaves, Shutter—
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Sheaves, Tackle Block—
American Well Works, Aurora, Ill.
Boston & Lockport Block Co., Boston.
Broderick & Bascom Rope Co., St. Louis.
Thomas Laughlin Co., Portland, Me.
A. Leschen & Sons Rope Co., St. Louis.
Piqua Handle & Mfg. Co., Piqua, O.
W. & J. Tiebout, 118 Chambers St., N. Y.
Union Hardware Co., Torrington, Ct.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Sheaves, Wood Split—
American Well Works, Aurora, Ill.
Dodge Mfg. Co., Mishawaka, Ind.
Saginaw Mfg. Co., Saginaw, Mich.

Sheep Belts, Shears—
(See Belts, Shears.)
Sheep Shearing Machines—
American Shearer Mfg. Co., Nashua, N. H.
Chicago Flexible Shaft Co., 124 La Salle Ave., Chicago, Ill.
Sigourney Tool Co., Hartford, Ct.

Sheet and Roll Brass—
(See Brass, Roll and Sheet.)

Sheet and Roll Bronze—
(See Bronze, Roll and Sheet.)

Sheet Bars—
(See Bars, Sheet and Tin Plate.)

Sheet Copper—
(See Copper, Roll and Sheet.)

Sheet Corrugating Machinery—

Niagara Machine & Tool Co., Buffalo, N. Y.
Geo. A. Ohl & Co., Newark, N. J.

Sheet Guides—
(See Guides, Sheet and Rope.)

Sheet Iron, Cold Rolled—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.
Bourne-Fuller Co., Cleveland, O.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.
Merchant & Evans Co., Philadelphia, Pa.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.
Waite, Ranlet & Co., Boston, Mass.
Sheet Iron Door Caps—
(See Caps, Door and Window, Metal.)
Sheet Iron Finials—
(See Finials and Vases, Metal.)
Sheet Iron, Planished—
American Sheet and Tin Plate Co., Pittsburgh, Pa.
Follansbee Bros. Co., Pittsburgh, Pa.

MERCHANTS.
Bourne-Fuller Co., Cleveland, O.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Merchant & Evans Co., Philadelphia, Pa.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and Wayman Sts., Chicago, Ill.
Waite, Ranlet & Co., Boston, Mass.

Sheet Lead—
E. Phillips & Sons, So. Hanover, Mass.

Sheet Metal, Blanked and Formed—
(See Stamping, Sheet Metal.)

Sheet Metal Dies, Gauges—
(See Dies, Gauges.)

Sheet Metal Goods, to Order—

Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

A. N. Clark & Son, Plainville, Ct.
W. J. Clark Co., Salem, O.

Crosby Co., Buffalo, N. Y.
Eastern Machine & Stamping Co., Providence, R. I.

Erie Stamping & Mfg. Co., Erie, Pa.
Goodwin & Kintz Co., Winsted, Ct.

Gueder & Paeschke Mfg. Co., Milwaukee, Wis.

Janney, Steinmetz & Co., Philadelphia.
John B. Kelm Mills, Inc., Buffalo, N. Y.

Metal Specialties Mfg. Co., Chicago, Ill.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

M. I. Smith, Bristol, Ct.
W. H. Stearns Stamping Co., Worcester, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Worcester Pressed Steel Co., Worcester, Mass.

Worcester Stamping Co., Worcester, Mass.

Sheet Metal Perforated and Punched, to Order—

Harrington & King Perforating Co., 200 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.
Charles Mundt & Sons, 441-447 Pearl St., New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Sheet Metal Specialties—
(See Metal Specialties to Order.)

Sheet Metal Stamping—
(See Stamping, Sheet Metal.)

Sheet Metal Work—
American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.

Avery Stamping Co., Cleveland, O.

Brossert Electric. Construction Co., Utica, N. Y.

A. N. Clark & Son, Plainville, Ct.

W. J. Clark Co., Salem, O.

Clark Novelty Co., Rochester, N. Y.

Drouve Co., Bridgeport, Ct.

Eastern Machine & Stamping Co., Providence, R. I.

Erie Stamping & Mfg. Co., Erie, Pa.

Gen Mfg. Co., Pittsburgh, Pa.

Globe Machine & Stamping Co., Cleveland, O.

Gueder & Paeschke Mfg. Co., Milwaukee, Wis.

John R. Keim Mills, Inc., Buffalo, N. Y.

Otto Konigslow Mfg. Co., Cleveland, O.

Mathews Mfg. Co., Worcester, Mass.

Metal Specialties Mfg. Co., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Schatz Hardware Mfg. Co., Chappaqua, N. Y.

M. I. Smith, Bristol, Ct.

Thomas Smith Co., Worcester, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.

W. & S. Mfg. Co., Worcester, Mass.

Webster Mfg. Co., 1075-1111 W. 15th St., Chicago, Ill.

Robert Wetherill & Co., Chester, Pa.

Whitlock Coil Pipe Co., Hartford, Ct.

Sheet Mill Doublers

(See Doublers, Sheet Mill.)

Sheet Rubber, Unvulcanized

New York Belting & Packing Co., 91-93 Chambers St., New York.

Sheet Steel, Cold Rolled

Allegheny Steel Co., Pittsburgh, Pa.

American Sheet and Tin Plate Co., Pittsburgh, Pa.

American Tube & Stamping Co., Bridgeport, Ct.

Columbia Steel Co., Elyria, O.

Henry Diston & Sons, Philadelphia, Pa.

Empire Iron & Steel Co., Niles, O.

Follanshee Bros. Co., Pittsburgh, Pa.

John Illingworth Steel Co., Frankford, Philadelphia, Pa.

Wm. Jessop & Sons, 91 John St., N. Y.

Morris & Bailey Steel Co., Pittsburgh, Pa.

Newport Rolling Mill Co., Newport, Ky.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Stanley Works, New Britain, Ct.

Superior Steel Co., Carnegie, Pa.

S. & C. Wardlow, 95 John St., N. Y.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Denman & Davis, 85-91 Lafayette St., New York.

Dilworth, Gilbert & Towne, Inc., 35-37

Wooster St., New York.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.

Merchant & Evans Co., Philadelphia, Pa.

Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Patriarche & Bell, 215 Pearl St., N. Y.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

Waite, Ranlet & Co., Boston, Mass.

Woodward, Wright & Co., Ltd., New Orleans, La.

Sheet Steel, Covered with

Asbestos

Asbestos Protected Metal Co., Canton, Mass.

Sheet Steel, Covered with

Nickel

Hermann Boker & Co., 101-103 Duane St., New York.

Sheet Steel, Hot Rolled

Allegheny Steel Co., Pittsburgh, Pa.

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Henry Diston & Sons, Philadelphia, Pa.

Empire Iron & Steel Co., Niles, O.

Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.

John Illingworth Steel Co., Frankford, Philadelphia, Pa.

Wm. Jessop & Sons, 91 John St., N. Y.

La Belle Iron Works, Steubenville, O.

Newport Rolling Mill Co., Newport, Ky.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Superior Steel Co., Carnegie, Pa.

S. & C. Wardlow, 95 John St., N. Y.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co., Youngstown, O.

Youngstown Sheet & Tube Co., Youngstown, O.

MERCHANTS.

Hermann Boker & Co., 101-103 Duane St., New York.

Bourne-Fuller Co., Cleveland, O.

Dilworth, Gilbert & Towne, Inc., 35-37

Wooster St., New York.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Merchant & Evans Co., Philadelphia, Pa.

Patriarche & Bell, 215 Pearl St., N. Y.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

Sheets, Aluminum

Aluminum Co. of America, Pittsburgh, Pa.

Scovill Mfg. Co., Waterbury, Ct.

Sheets, Aluminum, Perforated

E. B. Stimpson Co., 31 Spruce St., N. Y.

Sheets, Bicyc Tube

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Sheets, Brass

(See Brass, Roll and Sheet.)

Sheets, Corrugated Iron

W. N. Kratzer & Co., Pittsburgh, Pa.

Sheets, Corrugated Steel

W. N. Kratzer & Co., Pittsburgh, Pa.

Sheets, Crucible Steel—

Henry Disston & Sons, Philadelphia, Pa.
John Illingworth Steel Co., Frankford,
Philadelphia, Pa.

Sheets, Curved Corrugated—

American Sheet and Tin Plate Co., Pitts-
burgh, Pa.
Empire Iron & Steel Co., Niles, O.
La Belle Iron Works, Steubenville, O.
Newport Rolling Mill Co., Newport, Ky.
Niles Corrugating Co., Niles, O.
Wm. B. Scaife & Sons Co., Pittsburgh.
Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.
Youngstown Sheet & Tube Co., Youngs-
town, O.

**Sheets, Double Refined Pud-
dled Iron—**

Empire Iron & Steel Co., Niles, O.
Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.
Youngstown Iron & Steel Roofing Co.,
Youngstown, O.
Youngstown Sheet & Tube Co., Youngs-
town, O.

Sheets, Electrical

Allegheny Steel Co., Pittsburgh, Pa.
American Sheet and Tin Plate Co., Pitts-
burgh, Pa.
Empire Iron & Steel Co., Niles, O.
Follansbee Bros. Co., Pittsburgh, Pa.
Inland Steel Co., First National Bank
Bldg., Chicago, Ill.
Newport Rolling Mill Co., Newport, Ky.
Parkersburg Iron & Steel Co., Parkers-
burg, W. Va.
Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.
J. Wood & Bros. Co., Conshohocken, Pa.
Youngstown Sheet & Tube Co., Youngs-
town, O.

Sheets, Enameling Steel—

Allegheny Steel Co., Pittsburgh, Pa.
American Sheet and Tin Plate Co., Pitts-
burgh, Pa.
Follansbee Bros. Co., Pittsburgh, Pa.
La Belle Iron Works, Steubenville, O.
Parkersburg Iron & Steel Co., Parkers-
burg, W. Va.
Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.

Sheets, Galley—

Bridgeport Brass Co., 233 B'way, N. Y.

Sheets, Galvanized—

American Sheet and Tin Plate Co., Pitts-
burgh, Pa.
Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.
Delphos Mfg. Co., Delphos, O.
Empire Iron & Steel Co., Niles, O.
Follansbee Bros. Co., Pittsburgh, Pa.
Inland Steel Co., First National Bank
Bldg., Chicago, Ill.
La Belle Iron Works, Steubenville, O.
McCullough Iron Co., Wilmington, Del.
Newport Rolling Mill Co., Newport, Ky.
Niles Corrugating Co., Niles, O.
Seneca Iron & Steel Co., Buffalo, N. Y.
Vollkommer & Hagan, Pittsburgh, Pa.
Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.

Youngstown Iron & Steel Roofing Co.,
Youngstown, O.
Youngstown Sheet & Tube Co., Youngs-
town, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-91 Lafayette St.,
New York.

Dilworth, Gilbert & Towne, Inc., 35-37

Wooster St., New York.

General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.

C. B. Houston & Co., Girard Bldg., Phila-
delphia, Pa.

Merchant & Evans Co., Philadelphia, Pa.

Edmund W. Mudge & Co., Pittsburgh, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 13-22 Milwau-
kee Ave., Chicago, Ill.

Scully Steel & Iron Co., Halsted and

Wayman Sts., Chicago, Ill.

Waite, Ranlet & Co., Boston, Mass.

Sheets, German Silver—

Riverside Metal Co., Riverside, N. J.

Seymour Mfg. Co., Seymour, Ct.

Sheets, Iron and Steel—

Allegheny Steel Co., Pittsburgh, Pa.

American Sheet and Tin Plate Co., Pitts-
burgh, Pa.

American Steel & Wire Co., The Rookery,
Chicago, Ill.

American Tube & Stamping Co., Bridge-
port, Ct.

Chattanooga Roofing & Foundry Co.,
Chattanooga, Tenn.

Henry Disston & Sons, Philadelphia, Pa.

Empire Iron & Steel Co., Niles, O.

Follansbee Bros. Co., Pittsburgh, Pa.

John Illingworth Steel Co., Frankford,
Philadelphia, Pa.

Inland Steel Co., First National Bank
Bldg., Chicago, Ill.

Janney, Steinmetz & Co., Philadelphia.

William Jessop & Son, 91 John St., N. Y.

McCullough Iron Co., Wilmington, Del.

Niles Corrugating Co., Niles, O.

Parkersburg Iron & Steel Co., Parkers-
burg, W. Va.

Thomas Prosser & Son, 26 Platt St., N. Y.

Seneca Iron & Steel Co., Buffalo, N. Y.

Sligo Iron & Steel Co., Pittsburgh, Pa.

Alan Wood Iron & Steel Co., 915 Arch St.,
Philadelphia, Pa.

J. Wood & Bros. Co., Conshohocken, Pa.

Youngstown Iron & Steel Roofing Co.,
Youngstown, O.

Youngstown Sheet & Tube Co., Youngs-
town, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Denman & Davis, 85-91 Lafayette St.,
N. Y.

Dilworth, Gilbert & Towne, Inc., 35-37

Wooster St., New York.

General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.

C. B. Houston & Co., Girard Bldg., Phila-
delphia, Pa.

Ernest Law & Co., 15th and Market Sts.,
Philadelphia, Pa.

Henry Lewis & Co., 26 So. 15th St., Phila-
delphia, Pa.

Merchant & Evans Co., Philadelphia, Pa.

Geo. Nash & Co., 24 S. Clinton St., Chi-
cago, Ill.

Pierson & Co., 29 Broadway, New York.

Horace T. Potts & Co., 315-323 No. 3d
St., Philadelphia, Pa.

Thos. Prosser & Son, 26 Platt St., N. Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
Charles G. Stevens Co., 58-60 So. Canal St., Chicago, Ill.
Wheelock, Lovejoy & Co., 23 Cliff St., New York.

Sheets, Locomotive Jacket Steel—

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.
J. Wood & Bros. Co., Conshohocken, Pa.

Sheets, Metal, Eave Trough and Conductor Stock—

Niles Corrugating Co., Niles, O.

Sheets, Milk Can Body—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Follansbee Bros. Co., Pittsburgh, Pa.
Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Sheets, Nickel—

Hermann Boker & Co., 101-103 Duane St., New York.

Sheets, Open Hearth, Steel—

Allegheny Steel Co., Pittsburgh, Pa.
Empire Iron & Steel Co., Niles, O.
Follansbee Bros. Co., Pittsburgh, Pa.
John Illingworth Steel Co., Frankford, Philadelphia, Pa.
La Belle Iron Works, Steubenville, O.
Newport Rolling Mill Co., Newport, Ky.
Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Thomas Prosser & Son, 26 Platt St., N. Y.
Tennessee Coal, Iron & Railroad Co., 71 Broadway, New York.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

Sheets, Phosphor Bronze—

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Paul S. Reeve & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.

Sheets, Platinum—

Baker & Co., Inc., Newark, N. J.
J. Bishop & Co., Malvern, Pa.

Sheets, Polished Steel—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Youngstown Sheet & Tube Co., Youngstown, O.

Sheets, Roofing—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Asbestos Protected Metal Co., Canton, Mass.

Empire Iron & Steel Co., Niles, O.
Inland Steel Co., First National Bank Bldg., Chicago, Ill.

La Belle Iron Works, Steubenville, O.
McCullough Iron Co., Wilmington, Del.

Newport Rolling Mill Co., Newport, Ky.
Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Wm. B. Seafie & Sons Co., Pittsburgh.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

Sheets, Steel Blue, Annealed—

La Belle Iron Works, Steubenville, O.

Sheets, Steel, for Deep Stamping—

Allegheny Steel Co., Pittsburgh, Pa.

Empire Iron & Steel Co., Niles, O.
Follansbee Bros. Co., Pittsburgh, Pa.

La Belle Iron Works, Steubenville, O.
Newport Rolling Mill Co., Newport, Ky.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Sheets, Steel, for Electro-Plating—

Allegheny Steel Co., Pittsburgh, Pa.

Sheets, Steel Range—

Allegheny Steel Co., Pittsburgh, Pa.

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Empire Iron & Steel Co., Niles, O.
Newport Rolling Mill Co., Newport, Ky.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

Sheets, Steel Shovel—

Allegheny Steel Co., Pittsburgh, Pa.

Sheets, Steel Stamping—

Allegheny Steel Co., Pittsburgh, Pa.

Empire Iron & Steel Co., Niles, O.
La Belle Iron Works, Steubenville, O.

Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Sheets, Stove Body—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Empire Iron & Steel Co., Niles, O.
Parkersburg Iron & Steel Co., Parkersburg, W. Va.

Alan Wood Iron & Steel Co., 519 Arch St., Philadelphia, Pa.

Sheets, Tack Plate—

Allegheny Steel Co., Pittsburgh, Pa.

Sheets, Tinned Dairy—

American Sheet and Tin Plate Co., Pittsburgh, Pa.

Follansbee Bros. Co., Pittsburgh, Pa.

Shelf Boxes, Brackets, Pins—

(See Boxes, Brackets, Pins.)

Shellers, Corn—

Keystone Farm Machine Co., York, Pa.

R. W. Whitehurst & Co., Norfolk, Va.

Shells—

(See Metal Specialties, to order.)

Shells, Automobile and Marine Boiler—

Avery Stamping Co., Cleveland, O.
Wm. B. Seafie & Sons Co., Pittsburgh.

Shells, Brass, Shot—

Union Metallic Cartridge Co., Bridgeport, Ct.

Shells, Electric Socket, Fixture, Fuse, &c.—

Seovill Mfg. Co., Waterbury, Ct.

Shells, Gong—

(See Gongs.)

Shells, Paper Loaded—

Union Metallic Cartridge Co., Bridgeport, Ct.

Shells, Paper Shot, Empty—
Union Metallic Cartridge Co., Bridgeport, Ct.

Shells, Rifled Bullet—
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Shells, Rock Crusher—
Chrome Steel Works, Chrome, N. J.
Thomas Prosser & Son, 26 Platt St., N.Y.
Taylor Iron & Steel Co., High Bridge, N. J.

Shells, Roll—
Blake & Johnson Co., Waterbury, Ct.
Chrome Steel Works, Chrome, N. J.
Thomas Prosser & Son, 26 Platt St., N.Y.
Taylor Iron & Steel Co., High Bridge, N. J.

Shells, Seamless Drawn Steel, for Ordnance—
Avery Stamping Co., Cleveland, O.
Bethlehem Steel Co., So. Bethlehem, Pa.
Janney, Steinmetz & Co., Philadelphia.
Pressed Steel Tank Co., Milwaukee, Wis.

Shelves and Shelving, Library, Factory, &c.—
Terrell's Equipment Co., Grand Rapids, Mich.

Shelves, Refrigerator—
Buffalo Wire Works Co., Inc., Buffalo, N. Y.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Shelves, Stove Pipe—
Novelty Iron Works, Sterling, Ill.

Shelves, Stove Pipe, Wire—
(See Household Articles, Wire.)

Shelves, Window—
Andrews Wire & Iron Works, Rockford, Ill.

Shelving, Hardware Store—
W. C. Heller & Co., Montpelier, O.

Shelving, Steel—
W. J. Clark Co., Salem, O.

Shepherds' Crooks—
(See Crooks, Shepherds'.)

Shields, Expansion Bolt—
Boston Bolt Co., Boston, Mass.
Brohard Co., 1624 No. 9th St., Philadelphia, Pa.

Isaac Church, South Norwalk, Ct.
Diamond Expansion Bolt Co., 9-15 Murray St., New York.

F. H. Evans, Brooklyn, N. Y.
Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Star Expansion Bolt Co., 147-149 Cedar St., New York.

Stewart & Romaine Mfg. Co., Philadelphia, Pa.

Shifters, Belt—
(See Belt Shifters.)

Shims—
(See Wedges and Shims.)
Shingle and Heading Machines—
(See Heading and Shingle Machines.)

Shingles, Metallic—
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Eller Mfg. Co., Canton, O.
Merchant & Evans Co., Philadelphia, Pa.

Shingling Hatchets—
(See Hatchets, Shingling, Half, &c.)

Ship Anchors, Pumps—
(See Anchors, Pumps.)

Ship Carpenters' Tools—

(See Tools, Ship Carpenters'.)

Ship Chandlery Hardware—
Boston & Lockport Block Co., Boston.
Thomas Laughlin Co., Portland, Me.
W. & J. Tiebout, 118 Chambers St., New York.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Ship Hardware—

(See Marine Hardware.)

Ship Locks and Latches—
(See Locks and Latches.)

Shipbuilders—

American Bridge Co. of New York, 42 Broadway, New York.
Newport News Shipbuilding & Dry Dock Co., Newport News, Va.

Shipyards Machinery—

American Die & Tool Co., Reading, Pa.
Bertsch & Co., Cambridge City, Ind.
Brown Hoisting Machinery Co., Cleveland, O.

Browning Engineering Co., Cleveland, O.
Detrick & Harvey Machine Co., Baltimore.

Espen-Lucas Machine Works, Broad and Noble Sts., Philadelphia, Pa.

Fawcuss Machine Co., Pittsburgh, Pa.
Hilles & Jones Co., Wilmington, Del.

Niles-Bement-Pond Co., 111 Broadway, New York.

Geo. A. Oni & Co., Newark, N. J.
Stow Flexible Shaft Co., 28th & Callowhill Sts., Philadelphia, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Hill, Clarke & Co., Boston, Mass.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Vandyck, Churchill Co., 8 Dey St., N. Y.
Wickes Bros., Saginaw, Mich.

Shoddy Machinery—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Shoe Blacking, Brushes, &c.—
(See Blacking, Brushes, &c.)

Shoe Hook and Eyelet Setting Machines—

F. H. Smith Mfg. Co., 18-30 W. Randolph St., Chicago, Ill.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Shoe Horns—
(See Horns, Silver Plated.)

Shoe Knives—
(See Knives, Bread and Shoe.)

Shoe Nail Machines—
(See Nail Machines, Shoe.)

Shoe Peg Machinery—
Humphrey Machine Co., Keene, N. H.

Shoes, Brake—
American Steel Foundries, 42 Broadway, New York.

Barbour-Stockwell Co., Cambridgeport, Mass.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Sessions Foundry Co., Bristol, Ct.

Transue & Williams Co., Alliance, O.

Shoes, Horse and Mule—
American Horse Shoe Co., Phillipsburg, N. J.

American Steel & Wire Co., The Rookery,
Chicago, Ill.

Burden Iron Co., Troy, N. Y.
Phoenix Horse Shoe Co., Poughkeepsie,
N. Y.

Rhode Island Perkins Horse Shoe Co.,
Providence, R. I.

Richmond Forgings Corporation, Rich-
mond, Va.

Standard Horse Shoe Co., South Ware-
ham, Mass.

United States Horse Shoe Co., Erie, Pa.

Shoes, Horse, Rubber—
Whitman & Barnes Mfg. Co., Chicago.

Shoes, Ox—
Millers Falls Co., 28 Warren St., N. Y.

Scranton Forging Co., Scranton, Pa.
Walter W. Woodruff & Sons Co., Mount
Carmel, Ct.

Shoes, Pile—
Janney, Steinmetz & Co., Philadelphia.

Shoes, Sleigh—
S. Cheney & Son, Manlius, N. Y.

Shoes, Trunk—
J. H. Sessions & Son, Bristol, Ct.

Shoes, Wagon Lock—
S. Cheney & Son, Manlius, N. Y.

Shop Pans—
(See Pans, Shop.)

Shot, Copper, Purified—
Riverside Metal Co., Riverside, N. J.

Shot Guns, Spreaders—
(See Guns, Spreaders.)

Shoulder Hooks—
(See Hooks, Cup and Shoulder.)

**Shovel and Spade D-Handle
Tops—**
(See Tops, D-Handle.)

**Shovel Brackets, Handles,
Scrapers—**
(See Brackets, Handles, Scrapers.)

Shovel Machinery—
F. W. Bliss Co., Brooklyn, N. Y.

Niagara Machine & Tool Works, Buffalo,
N. Y.

**Shovels and Scoops, Fur-
nace—**

Avery Stamping Co., Cleveland, O.

W. J. Clark Co., Salem, O.

John H. Graham & Co., 113 Chambers
St., New York.

F. E. Kohler & Co., Canton, O.

Osborn Mfg. Co., Cleveland, O.

Steel Basket Co., Cedar Rapids, Ia.

Shovels and Spades—
Avery Stamping Co., Cleveland, O.

Conneaut Shovel Co., Conneaut, O.

John H. Graham & Co., 113 Chambers
St., New York.

Hubbard & Co., Pittsburgh, Pa.

F. E. Kohler & Co., Canton, O.

Shovels and Spades, Boys'—
Avery Stamping Co., Cleveland, O.

**Shovels and Spades, Tiling
or Ditching—**

American Fork & Hoe Co., Cleveland, O.

Avery Stamping Co., Cleveland, O.

John H. Graham & Co., 113 Chambers
St., New York.

Hubbard & Co., Pittsburgh, Pa.

Iwan Bros., Streator, Ill.

Ney Mfg. Co., Canton, O.

**Shovels, Blast Furnace and
Sewer Trench—**
Conneaut Shovel Co., Conneaut, O.

Shovels, Brass and Bronze—
Avery Stamping Co., Cleveland, O.

Shovels, Brick and Clay—
Avery Stamping Co., Cleveland, O.

Conneaut Shovel Co., Conneaut, O.

Hubbard & Co., Pittsburgh, Pa.

Shovels, Collier—
Avery Stamping Co., Cleveland, O.

John H. Graham & Co., 113 Chambers
St., New York.

Hubbard & Co., Pittsburgh, Pa.

Shovels, Excavating—
Avery Stamping Co., Cleveland, O.

Hubbard & Co., Pittsburgh, Pa.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Shovels, Irrigation—
Avery Stamping Co., Cleveland, O.

Hubbard & Co., Pittsburgh, Pa.

Shovels, Lime—
Conneaut Shovel Co., Conneaut, O.

Hubbard & Co., Pittsburgh, Pa.

Shovels, Mining—
Avery Stamping Co., Cleveland, O.

John H. Graham & Co., 113 Chambers
St., New York.

Hubbard & Co., Pittsburgh, Pa.

Shovels, Molders'—
Avery Stamping Co., Cleveland, O.

John H. Graham & Co., 113 Chambers
St., New York.

Hubbard & Co., Pittsburgh, Pa.

S. Obermayer Co., Cincinnati, O.

Osborn Mfg. Co., Cleveland, O.

Steel Basket Co., Cedar Rapids, Ia.

Shovels, Ore—
Avery Stamping Co., Cleveland, O.

Conneaut Shovel Co., Conneaut, O.

John H. Graham & Co., 113 Chambers
St., New York.

Hubbard & Co., Pittsburgh, Pa.

Shovels, Ox—
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Shovels, Power Grain—
H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

Shovels, Railroad Tamping—
Avery Stamping Co., Cleveland, O.

John H. Graham & Co., 113 Chambers
St., New York.

Hubbard & Co., Pittsburgh, Pa.

Shovels, Sewer—
Avery Stamping Co., Cleveland, O.

Shovels, Snow—
Avery Stamping Co., Cleveland, O.

John H. Graham & Co., 113 Chambers
St., New York.

Hubbard & Co., Pittsburgh, Pa.

F. E. Kohler & Co., Canton, O.

**Shovels, Spades and Spoons,
Pole Hole—**
Avery Stamping Co., Cleveland, O.

John H. Graham & Co., 113 Chambers
St., New York.

Hubbard & Co., Pittsburgh, Pa.

Shovels, Special, to Order—
Avery Stamping Co., Cleveland, O.

Shovels, Steam—
Thomas Carlin's Sons Co., Allegheny, Pa.

C. W. Hunt Co., West New Brighton,
N. Y.

MERCHANTS.

Thomas P. Conard & Co., 119 S. 4th St.,
Philadelphia, Pa.

Dalzell & Co., Harrison Bldg., Philadel-
phia, Pa.

Hyde Bros. & Co., Pittsburgh, Pa.
Edgar M. Moore & Co., Pittsburgh, Pa.

Shovels, Steam, Teeth and Lips for—

Taylor Iron & Steel Co., High Bridge, N. J.

Shovels, Street—
Conneaut Shovel Co., Conneaut, O.

Shovels, Stove—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Shovels, Tiling—
(See Shovels and Spades, Tiling or Ditching.)

Shovels, Tongs, Pokers, Fire Sets, &c.—

Fanner Mfg. Co., Cleveland, O.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Wrightsville Hardware Co., Wrightsville, Pa.

Shovels, Tunnel—
Avery Stamping Co., Cleveland, O.

Shovels, Wood—
John Sommer's Son, Newark, N. J.

Showcase Catches, Supports—
(See Catches, Supports.)

Shredders, Dry Fodder—
Keystone Farm Machine Co., York, Pa.

Silver Mfg. Co., Salem, O.

Shredders, Ice—
(See Shavers, Ice.)

Shredders, Vegetable—
Henry Disston & Sons, Philadelphia, Pa.

National Saw Co., Newark, N. J.

Shrinkers, Tire—
Boynton & Plummer, Worcester, Mass.

Champion Blower & Forge Co., Lancaster, Pa.

Wiley & Russell Mfg. Co., Greenfield, Mass.

Shuts, Cold—
Standard Chain Co., Pittsburgh, Pa.

Shutter Bars, Bolts, &c.—
(See Bars, Bolts, &c.)

Shutter Bowers—
(See Bowers, Shutter.)

Shutter Workers—
(See Workers, Shutter.)

Shutters, Iron and Steel—
(See Doors and Shutters, Iron and Steel.)

Sickles—
(See Hooks, Grass.)

Sickles, Mower and Harvester—

Whitaker Mfg. Co., Chicago, Ill.

Side Pulleys—
(See Pulleys, Side.)

Sidewalk Cleaners, Hoists—
(See Cleaners, Hoists.)

Sidewalk Foundations—
Youngstown Iron & Steel Roofing Co., Youngstown, O.

Siding, Imitation Brick and Rock—
(See Ceiling and Siding, Iron and Steel.)

Siding, Iron and Steel—
(See Ceiling and Siding, Iron and Steel.)

Siemens Gas Valves—
Vette Foundry & Machine Co., Pittsburgh, Pa.

Sieves—
(See Riddles and Sieves.)

Sieves, Ash—
Ludlow-Saylor Wire Co., St. Louis, Mo.

Wickwire Bros., Cortland, N. Y.

Sieves, Flour—
Estey Wire Works Co., 59 Fulton St., N. Y.

Galton Mfg. Co., Cleveland, O.

Wickwire Bros., Cortland, N. Y.

Sieves, Laboratory Testing—
Howard & Morse, 45 Fulton St., N. Y.

Sifters, Ash—
Acme Ball-Bearing Sales Co., 56 Warren St., New York.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

Gem Mfg. Co., Boston, Mass.

Hill Dryer Co., Worcester, Mass.

W. S. Tyler Co., Cleveland, O.

Sifters, Flour—
Andrews Wire & Iron Works, Rockford, Ill.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Sifters, Sand—
Barbour-Stockwell Co., Cambridgeport, Mass.

Ryram & Co., Inc., Detroit, Mich.

Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.

Gould & Eberhardt, Newark, N. J.

Harrington & King Perforating Co., 284 N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., Philadelphia, Pa.

Whiting Foundry Equipment Co., Harvey, Ill.

Sifters, Tack—
Henry Perkins Co., Bridgewater, Mass.

Sifting Machines, Hand and Power—
Estey Wire Works Co., 59 Fulton St., N. Y.

Sights, Gun, Rifle, &c.—
Bethlehem Steel Co., So. Bethlehem, Pa.

J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Sign or Engravers' Brass—
(See Brass, Sign or Engravers.)

Signal Bells, Cord, Lamps—
(See Bells, Cord, Lamps.)

Signaling Apparatus, Electric—
General Electric Co., Schenectady, N. Y.

Signs and Trays, Lithographed Metal Advertising—
New York Metal Ceiling Co., 537-539 W. 24th St., New York.

Signs, Brass—
Schwerdtle Stamp Co., Bridgeport, Ct.

Signs, Enamelled Steel—
Alfred Field & Co., 93 Chambers St., New York.

Signs, Sheet Metal—
Glen Mfg. Co., Ellwood City, Pa.

Schwerdtle Stamp Co., Bridgeport, Ct.

Signs, Wire, &c.—

Buffalo Wire Works Co., Buffalo, N. Y.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Glen Mfg. Co., Ellwood City, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Silico-Spice—
Geo. G. Blackwell, Sons & Co., Ltd., Liverpool, England.
C. Tennant Sons & Co., 76 William St., New York.

MERCHANTS.

Frank Samuel, Harrison Bldg., Philadelphia, Pa.
Silicon, Carbide of—
Carborundum Co., Niagara Falls, N. Y.
Silicon, Copper—
Roessler & Haasacher Chemical Co., 100 William St., New York.
Sills and Lintels, Building—
(See Structural Material.)

Silver—

Baker & Co., Inc., Newark, N. J.
Silver, German—
(See German Silver.)
Silver Plated Brushes—
(See Brushes, Silver Plated.)
Silver Plated Tableware—
(See Spoons and Forks, Silver and Plated.)
Silver Solder, Tubing—
(See Solder, Tubing.)

Single and Double Trees, Flow and Wagon—
Youngstown Iron & Steel Roofing Co., Youngstown, O.

Singletrees, Hay Hoisting—
F. E. Myers & Bro., Ashland, O.
Sink Bolts, Cleaners, Strainers—
(See Bolts, Cleaners, Strainers.)

Sinks, Cast—

Barnes Mfg. Co., Mansfield, O.
Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.
Central Foundry Co., 116 Nassau St., New York.

Goulds Mfg. Co., Seneca Falls, N. Y.
Humphreys Mfg. Co., Mansfield, O.
Novelty Iron Works, Sterling, Ill.

Sinks, Enamelled—

Barnes Mfg. Co., Mansfield, O.

Sinks, Slop—

Barnes Mfg. Co., Mansfield, O.

S. Cheney & Son, Manlius, N. Y.

Sinks, Wrought Steel—

Kilbourne & Jacobs Mfg. Co., Columbus, O.
Lalanc & Grosjean Mfg. Co., 299 Broadway, New York.

Siphons—

Crosby Steam Gage & Valve Co., Boston.
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

National Tube Co., Pittsburgh, Pa.

Sizers, Wood Turners'—

Krauter & Co., Inc., Newark, N. J.

Skate Bolts—

(See Wheels, Roller Skate.)

Skates, Ankle Support—

Barney & Berry, Springfield, Mass.

Skates, Ice—

Barney & Berry, Springfield, Mass.
Crosby Co., Buffalo, N. Y.
John H. Graham & Co., 113 Chambers St., New York.
Union Hardware Co., Torrington, Ct.

Samuel Winslow Skate Mfg. Co., Worcester, Mass.

Skates, Roller—

Barney & Berry, Springfield, Mass.
Richard Mfg. Co., Bloomsburg, Pa.
Union Hardware Co., Torrington, Ct.
Samuel Winslow Skate Mfg. Co., Worcester, Mass.

Skein Threading and Milling Machines, Wagon—

National Machinery Co., Tiffin, O.
Skelp, Iron and Steel—
Carnegie Steel Co., Pittsburgh, Pa.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
La Belle Iron Works, Steubenville, O.
Sligo Iron & Steel Co., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngtown, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Cabeen & Co., Arcade Bldg., Philadelphia, Pa.

C. B. Houston & Co., Girard Bldg., Philadelphia, Pa.

Edmund W. Mudge & Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.

Skewers, Butchers'—

Landers, Frary & Clark, New Britain, Ct.
Parker Wire Goods Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Skids—

Boston & Lockport Block Co., Boston.
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Skillets, Copper—

(See Ware, Copper.)

Skillets, Steel—

(See Ware, Hollow Steel.)

Skimmers—

(See Kitchen Articles, Wire.)

Skimmers and Stirrers, Crucible—

McCullough-Dalzell Crucible Co., Pittsburgh, Pa.

Skimmers, Lard—

(See Dippers and Skimmers, Lard.)

Skimmers, Plate Steel—

W. J. Clark Co., Salem, O.

Skirt Hanger—

(See Hangers, Garment and Trousers.)

Skylights—

E. B. Badger & Sons Co., Boston, Mass.
Burt Mfg. Co., Akron, O.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

G. Droue Co., Bridgeport, Ct.

Eller Mfg. Co., Canton, O.

Thos. W. Irwin Mfg. Co., Allegheny, Pa.

Slabbers, Log—

Humphrey Machine Co., Keene, N. H.

Lane Mfg. Co., Montpelier, Vt.

Slaters' Tools—

(See Tools, Slaters'.)

Slats, Louver—

Youngstown Iron & Steel Roofing Co., Youngstown, O.
Youngstown Sheet & Tube Co., Youngtown, O.

Slaw Cutters—

(See Cutters, Slaw.)

- Sledges and Hammers**—
Heller Bros. Co., Newark, N. J.
Hubbard & Co., Pittsburgh, Pa.
L. & I. J. White Co., Buffalo, N. Y.
- Sledges, Blacksmiths**—
Hubbard & Co., Pittsburgh, Pa.
- Sledges, Coal and Stone**—
Hubbard & Co., Pittsburgh, Pa.
- Sledges, Horseshoers' Turning**—
Hubbard & Co., Pittsburgh, Pa.
- Sleds, Bob and Child's**—
Kirk-Latty Mfg. Co., Cleveland, O.
- Sleepers, Steel Railroad**—
(See Ties.)
- Sleeves, Dressing**—
New York Belting & Packing Co., 91-93 Chambers St., New York.
- Sleeves, Drill**—
Morse Twist Drill & Machine Co., New Bedford, Mass.
- Standard Tool Co., Cleveland, O.**
Union Twist Drill Co., Athol, Mass.
- Whitaker Mfg. Co., Chicago, Ill.**
- Sleeves, Plumbago**—
McCullough-Dazell Crucible Co., Pittsburgh, Pa.
- Sleigh Bells**—
(See Bells.)
- Sleigh Bell Straps**—
(See Straps, Sleigh Bell.)
- Sleigh Shoe Bolts**—
(See Bolts, Sleigh Shoe.)
- Slicers, Apple, for Power**—
Goodell Co., Antrim, N. H.
- Slicers, Beef**—
(See Cutters, Smoked Beef.)
- Slicers, Vegetable and Fruit**—
E. C. Atkins & Co., Indianapolis, Ind.
Henry Diston & Sons, Philadelphia, Pa.
Enterprise Mfg. Co. of Pa., Philadelphia, Pa.
- Kilbourne Mfg. Co., Troy, N. Y.**
Landers, Frary & Clark, New Britain, Ct.
Parker Wire Goods Co., Worcester, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Slicks, Carpenters**—
Buck Bros., Millbury, Mass.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- James Swan Co., Seymour, Ct.**
L. & I. J. White Co., Buffalo, N. Y.
- Slide Rests**—(See Rests, Slide.)
- Slides, Blanket**—
Advance Mfg. Co., Racine, Wis.
- Slides, Desk**—
Stanley Works, New Britain, Ct.
- Slides, Rope**—
(See Clamps and Slides, Rope.)
- Sling Chains**—(See Chains, Sling.)
- Slings, Chain**—
Woodward, Wight & Co., Ltd., New Orleans, La.
- Slings, Hay**—
(See Haying Tools.)
- Slings, Rope**—
Woodward, Wight & Co., Ltd., New Orleans, La.
- Slitting Machines, Metal**—
(See also Shears, Slitting.)
American Tube & Stamping Co., Bridgeport, Ct.
- Badger State Machine Co., Janesville, Wis.**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Blake & Johnson Co., Waterbury, Ct.
E. W. Bliss Co., Brooklyn, N. Y.
Ferracute Machine Co., Bridgeton, N. J.
Chas. Leffler & Co., Brooklyn, N. Y.
Niagara Machine & Tool Works, Buffalo, New York.
Niles-Bement-Pond Co., 111 Broadway, New York.
George A. Ohl & Co., Newark, N. J.
Henry Perkins Co., Bridgewater, Mass.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Walzmashinenfabrik August Schmits, Dusseldorf, Germany.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Slitting Machines, Metal, Gang**—
Blake & Johnson Co., Waterbury, Ct.
Niagara Machine & Tool Works, Buffalo, N. Y.
- E. B. Stimpson Co., 31 Spruce St., N. Y.**
- Slitting Machines, Paper**—
Hobbs Mfg. Co., Worcester, Mass.
- E. B. Stimpson Co., 31 Spruce St., N. Y.**
- Slitting Saws**—
(See Saws, Slitting.)
- Slotted Head Bolts**—
(See Bolts, Special.)
- Slotters, Bench**—
Grant Mfg. & Machine Co., Bridgeport, Ct.
- Slotting and Slabbing Machines, Bicycle Nipple**—
Garvin Machine Co., Spring & Varick Sts., New York.
- E. J. Manville Mach. Co., Waterbury, Ct.**
- Slotting Attachments for Milling Machines**—
Brown & Sharpe Mfg. Co., Providence, R. I.
- Slotting Machines**—
Garvin Machine Co., Spring & Varick Sts., New York.
- Hendey Machine Co., Torrington, Ct.**
Harvey Hubbell, Bridgeport, Ct.
National-Acme Mfg. Co., Cleveland, O.
New Haven Mfg. Co., New Haven, Ct.
Newton Machine Tool Works, 23d & Vine Sts., Philadelphia, Pa.
Niles-Bement-Pond Co., 111 Broadway, New York.
- Slotting Machines, Locomotive Frame**—
Niles-Bement-Pond Co., 111 Broadway, New York.
- Slotting Machines, Portable**—
Newton Machine Tool Works, 23d and Vine Sts., Philadelphia, Pa.
- Slotting Machines, Screw Head**—
Brown & Sharpe Mfg. Co., Providence, R. I.
- Aas S. Cook Co., Hartford, Ct.**
Dwight Slate Machine Co., Hartford, Ct.
Garvin Machine Co., Spring & Varick Sts., New York.
Grant Mfg. & Machine Co., Bridgeport, Ct.
Hartford Machine Screw Co., Hartford, Ct.
Harvey Hubbell, Bridgeport, Ct.
E. J. Manville Machine Co., Waterbury, Ct.

National-Acme Mfg. Co., Cleveland, O.
 Pratt & Whitney Co., Hartford, Ct.
 Taylor & Fenn Co., Hartford, Ct.
 Waterbury Enamel Foundry & Machine
 Co., Waterbury, Ct.
Slotting Screws, to Order—
 Blake & Johnson Co., Waterbury, Ct.
Sloyd Knives—
 (See Knives, Wood Carvers'.)
Smelting Machinery—
 American Furnace & Machine Co., Pitts-
 burgh, Pa.
Smokestacks—
 (See Chimneys, Steel.)
Snap Gauges, Gauge
Blanks—
 (See Gauges, Blanks.)
Snaps and Swivels, Halter,
Harness, &c.—
 Covert Mfg. Co., Troy, N. Y.
 East Bangor Mfg. Co., East Bangor, Pa.
Snaps, Halter, Harness,
Rope, &c.—
 Billings & Spencer Co., Hartford, Ct.
 Bridgeport Chain Co., Bridgeport, Ct.
 Covert Mfg. Co., Troy, N. Y.
 East Bangor Mfg. Co., East Bangor, Pa.
 North & Judd Mfg. Co., New Britain, Ct.
Snatch Blocks—
 (See Blocks, Deck and Snatch.)
Snaths—
 American Fork & Hoe Co., Cleveland, O.
Sniffing Valves—
 (See Valves, Sniffing.)
Snips, Cotton Bale—
 Peck, Stow & Wilcox Co., 27 Murray
 St., New York.
Snips, Pipe—
 Krauter & Co., Inc., Newark, N. J.
Snips, Tinner's—
 (See Shears and Snips, Tinner's.)
Snow Guards—
 (See Guards, Snow and Ice.)
Snow Shovels—
 (See Shovels, Snow.)
Soap Dishes, Trays—
 (See Dishes, Trays.)
Soapstone Crayons—
 (See Crayons, Lumber, Marble, Metal
 Workers', &c.)
Soapstone Griddles—
 (See Griddles, Soapstone.)
Socket Bolts, Hooks,
Wrenches—
 (See Bolts, Hooks, Wrenches.)
Socket Bushings and Hooks,
Electric—
 (See Electric Light Fittings.)
Sockets, Drill—
 Billings & Spencer Co., Hartford, Ct.
 Cleveland Twist Drill Co., Cleveland, O.
 Keystone Mfg. Co., Buffalo, N. Y.
 Morse Twist Drill & Machine Co., New
 Bedford, Mass.
 Standard Tool Co., Cleveland, O.
 Stow Flexible Shaft Co., 26th and Callow-
 hill Sts., Philadelphia, Pa.
 Union Twist Drill Co., Athol, Mass.
 Whitaker Mfg. Co., Chicago, Ill.
 Whitman & Barnes Mfg. Co., Chicago.
Sockets, Flag Pole—
 W. & J. Tiebout, 118 Chambers St., N. Y.
Sockets, Lathe—
 (See Sockets, Drill.)
Sockets, Oil Feeding—
 Cleveland Twist Drill Co., Cleveland, O.

Sockets, Shaft, Yoke, Pole
and Whiffletree—
 (See Tips or Sockets, Shaft, Yoke, Pole
 and Whiffletree.)

Sockets, Tool, Grip—
 Cleveland Twist Drill Co., Cleveland, O.
Sockets, Whip—
 Fernald Mfg. Co., North East, Pa.
 Peck, Stow & Wilcox Co., 27 Murray
 St., New York.

Sockets, Wire Rope—
 Broderick & Bascom Rope Co., St. Louis.
 Keystone Drop Forge Works, Chester, Pa.
 Thomas Laughlin Co., Portland, Me.
 A. Leschen & Sons Rope Co., St. Louis.
 Waterbury Co., 69 South St., New York.
 Wilcox, Crittenden & Co., Inc., Middle-
 town, Ct.

J. H. Williams & Co., Brooklyn, N. Y.
Soda Tanks—
 (See Tanks, Gas, Air, Soda, &c.)

Soda Water Spoons—
 (See Spoons, Soda Water.)

Softening Systems, Water—
 Harrison Safety Boiler Works, 3194 N. 17th
 St., Philadelphia, Pa.
 Helwig Mfg. Co., St. Paul, Minn.
 Wm. B. Scaife & Sons Co., Pittsburgh.

Solder—
 Charles H. Besly & Co., 15-21 Clinton
 St., Chicago, Ill.
 Empire Metal Co., Syracuse, N. Y.
 Theo. Hertz Metal Co., St. Louis, Mo.
 U. T. Hungerford Brass & Copper Co.,
 497-505 Pearl St., New York.
 Merchant & Evans Co., Philadelphia, Pa.
 Charles Millar & Son Co., Utica, N. Y.
 Pittsburgh White Metal Co., Pittsburgh.

Solder, Aluminum—
 Clum & Atkinson, Rochester, N. Y.
 Janney, Steinmetz & Co., Philadelphia.

Solder, Braziers—
 Bridgeport Brass Co., 253 B'way, N. Y.
 U. T. Hungerford Brass & Copper Co.,
 497-505 Pearl St., New York.

Merchant & Evans Co., Philadelphia, Pa.
 H. M. Shimer & Co., 19th St. & Wash-
 ington Ave., Philadelphia, Pa.

Solder, Silver, for Saws—
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Diaston & Sons, Philadelphia, Pa.
 U. T. Hungerford Brass & Copper Co.,
 497-505 Pearl St., New York.

Soldering Copper Handles—
 (See Handles, Soldering Copper.)

Soldering Coppers, Fur-
naces, Sets—
 (See Coppers, Furnaces, Sets.)

Soldering Machine—
 E. W. Bliss Co., Brooklyn, N. Y.
 Chas. Leffler & Co., Brooklyn, N. Y.
 Niagara Machine & Tool Works, Buffalo,
 N. Y.

Soldering Nipples—
 (See Nipples, Soldering.)

Solenoids—
 Electric Controller & Supply Co., Cleve-
 land, O.

Lincoln Motor Works Co., Cleveland, O.
Solenoids, Reversible and
Long Pull—

Lincoln Motor Works Co., Cleveland, O.
Soles and Soling, Rubber—

New York Belting & Packing Co., 9-11
 Chambers St., New York.

- Soles, Inner, Shoe—**
Graton & Knight Mfg. Co., Worcester, Mass.
- Solid Box Vises—**
(See Vises, Solid Box.)
- Solid Metal Spoons and Forks—**
(See Spoons and Forks, Solid Metal.)
- Sounding Leads—**
(See Leads, Sounding.)
- Sounding Machines and Sounders, Marine—**
Riggs & Bro., 310 Market St., Philadelphia.
- Sowers, Seed—**
Goodell Co., Antrim, N. H.
- Spacing Tables—**
Hilles & Jones Co., Wilmington, Del.
- Spade Handles—**
(See Handles, Fork, Spade, &c.)
- Spades—**
(See Shovels and Spades.)
- Spades, Butter—**
Goodell Co., Antrim, N. H.
- Spades, Clay—**
Conneaut Shovel Co., Conneaut, O.
- Spades, Grafting—**
Hubbard & Co., Pittsburgh, Pa.
- Spades, Post Hole—**
Hubbard & Co., Pittsburgh, Pa.
- Spading Forks—**
(See Forks, Hay, Manure, Spading, &c.)
- Span Wire—**
(See Wires, Electrical.)
- Spanners, Carriage—**
J. H. Williams & Co., Brooklyn, N. Y.
- Spark Arresters—**
(See Arresters, Spark.)
- Spark Guards—**
(See Guards, Grate.)
- Spark Plug Sparks—**
(See Automobile Parts.)
- Sparkign Points for Internal Combustion Engine—**
Baker & Co., Inc., Newark, N. J.
- Spatulas—**
American Cutlery Co., Chicago, Ill.
- Speaking Tube Hardware—**
W. R. Ostrander & Co., 22 Dey St., New York.
- Reading Hardware Co., Reading, Pa.**
- Speaking Tubes—**
(See Tubes, Speaking.)
- Spears, Fish—**
Arcade Mfg. Co., Freeport, Ill.
- Dame, Stoddard & Co., Boston, Mass.**
- Special Machinery—**
Abendroth & Root Mfg. Co., Newburgh, N. Y.
- Adriance Machine Works, Brooklyn, N. Y.**
- Alliance Machine Co., Alliance, O.**
- American Watch Tool Co., Waltham, Mass.**
- Automatic Machine Co., Bridgeport, Ct.**
- Baird Machine Co., Oakville, Ct.**
- Barbour-Stockwell Co., Cambridgeport, Mass.**
- Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.**
- Blake & Johnson Co., Waterbury, Ct.**
- S. W. Bliss Co., Brooklyn, N. Y.**
- Bridgeport Deoxidized Bronze & Metal Co., Bridgeport, Ct.**
- Asa S. Cook Co., Hartford, Ct.**
- W. P. Davis Machine Co., Rochester, N. Y.**
- Detrick & Harvey Machine Co., Baltimore, Md.**
- Earle Gear & Machine Co., Stenton and Wyoming Ave., Philadelphia, Pa.**
- Eastern Machine & Stamping Co., Providence, R. I.**
- Eastern Machinery Co., New Haven, Ct.**
- Eberhardt Bros. Machine Co., Newark, N. J.**
- Chas. F. Elmes Engineering Works, 253-259 Fulton St., Chicago, Ill.**
- Empire Foundry Co., New Brunswick, N. J.**
- Espen-Lucas Machine Co., Broad and Noble Sts., Philadelphia, Pa.**
- Fawcus Machine Co., Pittsburgh, Pa.**
- Ferracute Machine Co., Bridgeport, N. J.**
- Foot Bros. Gear & Machine Co., 24-30 S. Clinton St., Chicago, Ill.**
- Franklin Mfg. Co., New Haven, Ct.**
- Wm. Gardam & Son, Inc., 221 Fulton St., New York.**
- Garvin Machine Co., Spring & Varick Sts., New York.**
- Geometric Tool Co., New Haven, Ct.**
- Globe Machine & Stamping Co., Cleveland, O.**
- Gould & Eberhardt, Newark, N. J.**
- A. D. Granger Co., West St. Bldg., N. Y.**
- Grant Mfg. & Machine Co., Bridgeport, Ct.**
- E. Harrington, Son & Co. (Inc.), Philadelphia, Pa.**
- Heindel Mfg. Co., Hanover, Pa.**
- W. H. Hibbard Mfg. Co., Brooklyn, N. Y.**
- Hilbert Machine Co., Cincinnati, O.**
- Hill, Clarke & Co., Boston, Mass.**
- Hoefler Mfg. Co., Freeport, Ill.**
- Humphrey Machine Co., Keene, N. H.**
- I. H. Johnson, Jr., Co., Inc., 1422 Callowhill St., Philadelphia, Pa.**
- R. E. Kidder, Worcester, Mass.**
- W. R. Knight Machinery Co., St. Louis, Mo.**
- E. Konigslow Stamping & Tool Works, Cleveland, O.**
- Otto Konigslow Mfg. Co., Cleveland, O.**
- Chas. Leffer & Co., Brooklyn, N. Y.**
- Marshall & Huchart Machinery Co., 62 S. Canal St., Chicago, Ill.**
- Joseph Merritt, Hartford, Ct.**
- Metal Specialties Mfg. Co., Chicago, Ill.**
- Morgan Construction Co., Worcester, Mass.**
- Morgan Engineering Co., Alliance, O.**
- Frank Mossberg Co., Attleboro, Mass.**
- Mossberg Wrench Co., Central Falls, R. I.**
- Munsmert, Wolf & Dixon Co., Hanover, Pa.**
- National Machinery Co., Tiffin, O.**
- National Sewing Machine Co., Belvidere, Ill.**
- Niles-Bement-Pond Co., 111 Broadway, New York.**
- A. H. Nilson Machine Co., Bridgeport, Ct.**
- R. D. Nuttall Co., Pittsburgh, Pa.**
- George A. Ohl & Co., Newark, N. J.**
- Poole Engineering & Machine Co., Baltimore, Md.**
- Pratt & Whitney Co., Hartford, Ct.**
- Thos. Prosser & Son, 18 Platt St., N. Y.**
- Richard Mfg. Co., Bloomington, Ill.**

Richmond Forgings Corporation, Richmond, Va.

Risdon Tool Works, Inc., Waterbury, Ct.
Robinson Tool Works, Waterbury, Ct.
Roversford Foundry & Machine Co., Roversford, Pa.

W. L. Sargent, Fitchburg, Mass.
F. B. Shuster Co., New Haven, Ct.

Sigourney Tool Co., Hartford, Ct.
Sloan & Chace Mfg. Co., Ltd., Newark, N. J.

Standard Engineering Co., Ellwood City, Pa.

E. B. Stimpson Co., 31 Spruce St., N. Y.
Stoeber Foundry & Mfg. Co., Lebanon, Pa.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Taylor & Fenn Co., Hartford, Ct.
Torrington Mfg. Co., Torrington, Ct.

United Engineering & Foundry Co., Pittsburgh, Pa.

V. & O. Press Co., Brooklyn, N. Y.
Waltham Machine Works, Waltham, Mass.

Washburn Shops, Worcester, Mass.
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Watson-Stillman Co., 26 Cortlandt St., New York.

Webster & Perks Tool Co., Springfield, O.
Wellman-Seaver-Morgan Co., Cleveland, O.

A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Wickes Bros., Saginaw, Mich.
W. A. Wilson Machine Co., Rochester, N. Y.

Special Screws, Wire—
(See Screws, Special.)

Special Shapes on Tubular Form—

Standard Welding Co., Cleveland, O.
Specialties to Order, Metal—
(See Metal Specialties to Order.)

Specialties, Turned Metal—
(See Metal Work, Turned.)

Specialties, Wooden—
(See Wooden Specialties.)

Speed Changers—

National Machine Tool Co., Cincinnati, O.
Spelter—

American Metal Co., 52 Broadway, N. Y.
American Zinc Lead & Smelting Co., Boston, Mass.

Theo. Hertz Metal Co., St. Louis, Mo.
Illinois Zinc Co., Peru, Ill.

Mattliessen & Hegeler Zinc Co., La Salle, Ill.

Sandoval Zinc Co., 122 N. Peoria St., Chicago, Ill.

H. M. Shiner & Co., 49th St. and Washington Ave., Philadelphia, Pa.

MERCHANTS.

American Metal Co., 52 Broadway, N. Y.
Empire Metal Co., Syracuse, N. Y.

Hendricks Bros., 49 Cliff St., New York.
Merchant & Evans Co., Philadelphia, Pa.

Spelter, Brazing—
(See Brass, Brazing.)

Spice Cans, Mills—
(See Cans, Mills.)

Spiders, Steel—
(See Ware, Hollow Steel.)

Spiegeleisen—
Carnegie Steel Co., Pittsburgh, Pa.
C. Tennant Sons & Co., 76 William St., New York.

Spike Machinery—
National Machinery Co., Tiffin, O.

Spikes, Boat—
American Iron & Steel Mfg. Co., Lebanon, Pa.

American Steel & Wire Co., The Rookery, Chicago, Ill.

M. Lanz & Sons, Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Spikes, Dock, Wharf, &c.—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Jones & Laughlin Steel Co., Pittsburgh.
M. Lanz & Sons, Pittsburgh, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Pittsburgh Mfg. Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.

Spikes, Galvanized—
American Iron & Steel Mfg. Co., Lebanon, Pa.

Cleveland Galvanizing Works, Cleveland, O.

Spikes, Marlin, Pickers, &c.—
Thomas Laughlin Co., Portland, Me.

W. & J. Tiebout, 118 Chambers St., N. Y.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Spikes, Railroad—
American Iron & Steel Mfg. Co., Lebanon, Pa.

American Steel & Wire Co., The Rookery, Chicago, Ill.

Elyria Iron & Steel Co., Elyria, O.
Hirsch Rolling Mill Co., St. Louis, Mo.

Jones & Laughlin Steel Co., Pittsburgh.
Arthur Koppel Co., Pittsburgh, Pa.

Maryland Rail Co., Cumberland, Md.
Republic Iron & Steel Co., Pittsburgh, Pa.

Ernst Wiener Co., Broad and Beaver Sts., New York.

Spikes, Screw—
Pittsburgh Forge & Iron Co., Pittsburgh, Pa.

Spindles, Carriage and Furniture—
W. R. Hartigan, Collinsville, Ct.

Spindles, Clamp—
Gem Mfg. Co., Pittsburgh, Pa.

Spindles, Cream Separator—
Standard Welding Co., Cleveland, O.

Spinning Chucks—
(See Chucks, Spinning.)

Spinning Machines, Rivet—
Grant Mfg. & Machine Co., Bridgeport.

Spinning, Metal—
Rancroft & Co., Philadelphia, Pa.

Goodwin & Kintz Co., Winsted, Ct.

Spiral Conveyors—
(See Conveyors, Steel Screw.)

Spittoons— (See Cuspidors.)

Splice Bars—
Carnegie Steel Co., Pittsburgh, Pa.

Hirsch Rolling Mill Co., St. Louis, Mo.
Lackawanna Steel Co., 2 Rector St., N. Y.

Maryland Rail Co., Cumberland, Md.
Pittsburgh Forge & Iron Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

Splicers, Wire—
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.

- Otis A. Smith, Rockfall, Ct.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 (See also Pliers, Knot Tying.)
- Splicing Clamps—**
 (See Clamps, Splicing.)
- Splicing Machines—**
 Pratt & Whitney Co., Hartford, Ct.
- Splitters, Beef and Pork—**
 (See Cleavers.)
- Splitting Machines, Belt Knife—**
 American Tool & Machine Co., Boston.
- Spoke Header and Bender, Bicycle—**
 Garvin Machine Co., Spring and Varick Sts., New York.
- E. J. Manville Machine Co., Waterbury, Ct.**
- Spoke Pointers, Shaves, Trimmers—**
 (See Pointers, Shaves, Trimmers.)
- Spoke Tenon Machines—**
 Silver Mfg. Co., Salem, O.
- Spoke Threaders, Bicycle—**
 (See Threaders, Bicycle Spoke.)
- Spoke Wire, Bicycle—**
 (See Wire, Bicycle Spoke.)
- Spokes, Automobile and Bicycle—**
 American Steel & Wire Co., The Rookery, Chicago, Ill.
- Wire Goods Co., Worcester, Mass.**
- Spokes, Sulky—**
 Wire Goods Co., Worcester, Mass.
- Sponge Baskets—**
 (See Baskets, Sponge.)
- Spoiled Wire—**
 (See Wire, Spooled.)
- Spools, Sheet Metal—**
 (See Reels, Sheet Metal.)
- Spoon Holders—**
 (See Holders, Spoon, Silver Plated.)
- Spoon Trays—**
 (See Trays, Silver Plated.)
- Spoons and Forks, Silver and Silver Plated—**
 International Silver Co., Meriden, Ct.
- Landers, Frary & Clark, New Britain, Ct.**
- Spoons and Forks, Tinned—**
 Lalance & Grosjean Mfg. Co., 299 Broadway, New York.
- Charles Parker Co., Meriden, Ct.**
- Spoons, Ice Cream—**
 Erie Specialty Co., Erie, Pa.
- Spoons, Measuring—**
 Landers, Frary & Clark, New Britain, Ct.
- Spoons, Soda Water—**
 International Silver Co., Meriden, Ct.
- Spoons, Telegraph—**
 (See Shovels and Spoons, Telegraph Pole.)
- Spoons, Vegetable—**
 Landers, Frary & Clark, New Britain, Ct.
- Sporting Goods, Jobbers—**
 (See Jobbers, Hardware, Cutlery, Tools, Sporting Goods, &c.)
- Spots, Harness—**
 American Rivet Co., New Haven, Ct.
- Spouts, Grain—**
 H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.
- W. J. Clark Co., Salem, O.**
- Spouts, Oil—**
 Gem Mfg. Co., Pittsburgh, Pa.
- Maple City Mfg. Co., Monmouth, Ill.**
- Spouts, Sap—**
 Charles Millar & Son Co., Utica, N. Y.
- Sprayers, Crop, Horse—**
 Bateman Mfg. Co., Glenloch, N. J.
- Spraying Pumps—**
 (See Pumps, Spraying.)
- Spring Balances—**
 (See Balances.)
- Spring Coiling Machines—**
 Baird Machine Co., Oakville, Ct.
- Blake & Johnson Co., Waterbury, Ct.**
- Garvin Machine Co., Spring and Varick Sts., New York.**
- E. J. Manville Machine Co., Waterbury, Ct.**
- Springs, Agricultural Implements—**
 American Steel & Wire Co., The Rookery, Chicago, Ill.
- Bridgeport Chain Co., Bridgeport, Ct.**
- Cary Spring Works, 240-242 W. 29th St., New York.**
- Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.**
- Wm. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.**
- Harrow Spring Co., Kalamazoo, Mich.**
- Miller & Van Winkle, Brooklyn, N. Y.**
- Morgan Spring Co., Worcester, Mass.**
- Railway Steel Spring Co., 71 Broadway, New York.**
- Raymond Mfg. Co., Corry, Pa.**
- Sabin Machine Co., Montpelier, Vt.**
- Springs, Air Brake—**
 American Steel & Wire Co., The Rookery, Chicago, Ill.
- Cary Spring Works, 240-242 W. 29th St., New York.**
- Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.**
- W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.**
- Kilborn & Blahop Co., New Haven, Ct.**
- Miller & Van Winkle, Brooklyn, N. Y.**
- Morgan Spring Co., Worcester, Mass.**
- Railway Steel Spring Co., 71 Broadway, New York.**
- Raymond Mfg. Co., Corry, Pa.**
- Springs, Automobile—**
 American Steel & Wire Co., The Rookery, Chicago, Ill.
- Wallace Barnes Co., Bristol, Ct.**
- Beecher Draught Spring Co., New Haven, Ct.**
- Cary Spring Works, 240-242 W. 29th St., New York.**
- Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.**
- W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.**
- Miller & Van Winkle, Brooklyn, N. Y.**
- Morgan Spring Co., Worcester, Mass.**
- New York Wire & Spring Co., Hoboken, N. J.**
- Thomas Prosser & Son, 26 Platt St., N.Y.**
- Railway Steel Spring Co., 71 Broadway, New York.**
- Raymond Mfg. Co., Corry, Pa.**
- Springs, Baby Carriage—**
 E. R. Wagner Mfg. Co., North Milwaukee, Wis.
- Springs, Baby Jumper—**
 Miller & Van Winkle, Brooklyn, N. Y.
- Railway Steel Spring Co., 71 Broadway, New York.**
- Raymond Mfg. Co., Corry, Pa.**

Springs, Bed—

American Steel & Wire Co., The Rookery, Chicago, Ill.
Bridgeport Chain Co., Bridgeport, Ct.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
New York Wire & Spring Co., Hoboken, N. J.
Railway Steel Spring Co., 71 Broadway, New York.

Springs, Bicycle—

American Steel & Wire Co., The Rookery, Chicago, Ill.
Wallace Barnes Co., Bristol, Ct.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.
Raymond Mfg. Co., Corry, Pa.
Tuck Mfg. Co., Brockton, Mass.

Springs, Bird Cage—

Bridgeport Chain Co., Bridgeport, Ct.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Andrew B. Hendryx Co., New Haven, Ct.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Parker Wire Goods Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.
Turner & Stanton Co., Norwich, Ct.
Wire Goods Co., Worcester, Mass.

Springs, Bobbin Ring—

Wallace Barnes Co., Bristol, Ct.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Springs, Brake—

Fernald Mfg. Co., North East, Pa.
Raymond Mfg. Co., Corry, Pa.

Springs, Buggy Boot—

Fernald Mfg. Co., North East, Pa.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Springs, Car—

American Steel Foundries, 42 Broadway, New York.

American Steel & Wire Co., The Rookery, Chicago, Ill.

Farist Steel Co., Bridgeport, Ct.
Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.

Harrow Spring Co., Kalamazoo, Mich.
New York Wire & Spring Co., Hoboken, N. J.

Railway Steel Spring Co., 71 Broadway, New York.

Springs, Carriage. Wagon. &c.—

American Steel & Wire Co., The Rookery, Chicago, Ill.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Springs, Chair—

(See Springs, Furniture and Upholstery.)

Springs, Check—

American Steel & Wire Co., The Rookery, Chicago, Ill.
Wallace Barnes Co., Bristol, Ct.
Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.

Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Upson Nut Co., Cleveland, O.

Springs, Cleaner—

Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Wm. H. Haskell Mfg. Co., Pawtucket, R.I.
Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway, New York.

Springs, Clock—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Wallace Barnes Co., Bristol, Ct.

Boston Gear Works, Norfolk Downs, Mass.

Cary Spring Works, 240 W. 29th St., N.Y.

Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Railway Steel Spring Co., 71 Broadway, New York.

Washburn Wire Co., Phillipsdale, R. I.

Springs, Coil—

(See Springs, Steel.)

Springs, Compression—

Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.

Miller & Van Winkle, Brooklyn, N. Y.
Raymond Mfg. Co., Corry, Pa.

Springs, Couch—

(See Springs, Furniture and Upholstery.)

Springs, Cutter Bar—

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Dairy—

Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.

Springs, Derrick—

Beecher Draught Spring Co., New Haven, Ct.

Farist Steel Co., Bridgeport, Ct.

Miller & Van Winkle, Brooklyn, N. Y.
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Door—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Acade Mfg. Co., Freeport, Ill.

Wallace Barnes Co., Bristol, Ct.

Bridgeport Chain Co., Bridgeport, Ct.

Caldwell Mfg. Co., Rochester, N. Y.
 John Chailion & Sons, 85 Cliff St., N. Y.
 Chicago Spring Butt. Co., Chicago, Ill.
 W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.
 Lawrence Bros., Sterling, Ill.
 Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.
 Parker Wire Goods Co., Worcester, Mass.
 Pullman Mfg. Co., Rochester, N. Y.
 Railway Steel Spring Co., 71 Broadway,
 New York.
 Raymond Mfg. Co., Corry, Pa.
 Reading Hardware Co., Reading, Pa.
 Union Mfg. Co., New Britain, Ct.
 Wire Goods Co., Worcester, Mass.

Springs, Draught—
 Beecher Draught Spring Co., New Haven,
 Ct.
 Fort Pitt Spring & Mfg. Co., Pittsburgh,
 Pa.

Miller & Van Winkle, Brooklyn, N. Y.
 Railway Steel Spring Co., 71 Broadway,
 New York.
 Raymond Mfg. Co., Corry, Pa.
 Smith & Hemenway Co., 108-110 Duane
 St., New York.

Springs, Drill—
 Wallace Barnes Co., Bristol, Ct.
 W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.
 Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.
 Railway Steel Spring Co., 71 Broadway,
 New York.
 Raymond Mfg. Co., Corry, Pa.
 Sabin Machine Co., Montpelier, Vt.

Springs, Electrical Equip-
ment—

Wallace Barnes Co., Bristol, Ct.
 Bridgeport Chain Co., Bridgeport, Ct.
 Cary Spring Works, 240-242 W. 29th St.,
 New York.

Fort Pitt Spring & Mfg. Co., Pittsburgh,
 Pa.

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Kilborn & Bishop Co., New Haven, Ct.
 Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.
 Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Elliptic—
 American Steel Foundries, 42 Broadway,
 New York.

Farist Steel Co., Bridgeport, Ct.

Fort Pitt Spring & Mfg. Co., Pittsburgh,
 Pa.

Union Spring & Mfg. Co., New Kensington,
 Pa.

Springs, Exerciser—
 W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
 Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Extension—
 Fort Pitt Spring & Mfg. Co., Pittsburgh,
 Pa.

Miller & Van Winkle, Brooklyn, N. Y.

Raymond Mfg. Co., Corry, Pa.

Springs, Fender, Car—
 Fort Pitt Spring & Mfg. Co., Pittsburgh,
 Pa.

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Harrow Spring Co., Kalamazoo, Mich.

Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Folding Cart—
 E. R. Wagner Mfg. Co., North Milwaukee,
 Wis.

Springs, Friction Washer—
 Wallace Barnes Co., Bristol, Ct.

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Springs, Furniture and Up-
holstery—

American Steel & Wire Co., The Bookery,
 Chicago, Ill.

Bridgeport Chain Co., Bridgeport, Ct.

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

New York Wire & Spring Co., Hoboken,
 N. J.

Railway Steel Spring Co., 71 Broadway,
 New York.

Springs, Gas Engine—
 Miller & Van Winkle, Brooklyn, N. Y.

Raymond Mfg. Co., Corry, Pa.

Springs, Gate—
 Pullman Mfg. Co., Rochester, N. Y.

Springs, Go-Cart—
 Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway,
 New York.

E. R. Wagner Mfg. Co., North Milwaukee,
 Wis.

Springs, Governor—
 Wallace Barnes Co., Bristol, Ct.

Bridgeport Chain Co., Bridgeport, Ct.

Cary Spring Works, 240-242 W. 29th St.,
 New York.

Farist Steel Co., Bridgeport, Ct.

Fort Pitt Spring & Mfg. Co., Pittsburgh,
 Pa.

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Sabin Machine Co., Montpelier, Vt.

Springs, Grease Cup—
 Wallace Barnes Co., Bristol, Ct.

Miller & Van Winkle, Brooklyn, N. Y.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Gun—
 Wallace Barnes Co., Bristol, Ct.

W. D. Gibson Co., Huron and Kingsbury
 Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Railway Steel Spring Co., 71 Broadway,
 New York.

Raymond Mfg. Co., Corry, Pa.

Springs, Hatch Door—
 Miller & Van Winkle, Brooklyn, N. Y.

Raymond Mfg. Co., Corry, Pa.

Springs, Hay Loader—
Sabin Machine Co., Montpelier, Vt.
Springs, Hay Rake—
Sabin Machine Co., Montpelier, Vt.
Springs, Hinge—
American Steel & Wire Co., The Rookery,
Chicago, Ill.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Springs, Jig—
New York Wire & Spring Co., Hoboken,
N. J.
Raymond Mfg. Co., Corry, Pa.
Springs, Lamp—
Miller & Van Winkle, Brooklyn, N. Y.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Springs, Lever—
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Springs, Loader Teeth—
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Springs, Loom—
Wallace Barnes Co., Bristol, Ct.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.
Springs, Machine—
Wallace Barnes Co., Bristol, Ct.
Bridgeport Chain Co., Bridgeport, Ct.
Cary Spring Works, 240-242 W. 29th St.,
New York.
Farist Steel Co., Bridgeport, Ct.
Fort Pitt Spring & Mfg. Co., Pittsburgh,
Pa.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Harrow Spring Co., Kalamazoo, Mich.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
New York Wire & Spring Co., Hoboken,
N. J.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Springs, Motor—
American Steel & Wire Co., The Rookery,
Chicago, Ill.
Wallace Barnes Co., Bristol, Ct.
Boston Gear Works, Norfolk Downs, Mass.
Cary Spring Works, 240-242 W. 29th St.,
New York.

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.
Washburn Wire Co., Phillipsdale, R. I.
Springs, Oil Tempered—
American Steel & Wire Co., The Rookery,
Chicago, Ill.
Wallace Barnes Co., Bristol, Ct.
Bridgeport Chain Co., Bridgeport, Ct.
Cary Spring Works, 240-242 W. 29th St.,
New York.
John Chatillon & Sons, 85 Cliff St.,
New York.
Fort Pitt Spring & Mfg. Co., Pittsburgh,
Pa.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Kilborn & Bishop Co., New Haven, Ct.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.
Union Spring & Mfg. Co., New Kensington, Pa.
Springs, Organ and Piano—
American Steel & Wire Co., The Rookery,
Chicago, Ill.
Wallace Barnes Co., Bristol, Ct.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.
Springs, Piano Players—
Wallace Barnes Co., Bristol, Ct.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Springs, Piano Players—
Wallace Barnes Co., Bristol, Ct.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Railway Steel Spring Co., 71 Broadway,
New York.
Sabin Machine Co., Montpelier, Vt.
Springs, Plow—
Fort Pitt Spring & Mfg. Co., Pittsburgh,
Pa.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.
Springs, Pump Valve—
American Steel & Wire Co., The Rookery,
Chicago, Ill.
Wallace Barnes Co., Bristol, Ct.
Cary Spring Works, 240-242 W. 29th St.,
New York.
Fort Pitt Spring & Mfg. Co., Pittsburgh,
Pa.
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway,
New York.
Raymond Mfg. Co., Corry, Pa.

Springs. Railroad Track

Scrapper—
Farist Steel Co., Bridgeport, Ct.
Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Harrow Spring Co., Kalamazoo, Mich.
Miller & Van Winkle, Brooklyn, N. Y.
Railway Steel Springs Co., 71 Broadway, New York.

Springs. Rocker—
Bridgeport Chain Co., Bridgeport, Ct.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.
Raymond Mfg. Co., Corry, Pa.

Springs. Sash—
Wallace Barnes Co., Bristol, Ct.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Springs. Scale—
Miller & Van Winkle, Brooklyn, N. Y.
Railway Steel Spring Co., 71 Broadway, New York.

Springs. Seat and Back—
Bridgeport Chain Co., Bridgeport, Ct.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Harrow Spring Co., Kalamazoo, Mich.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Springs. Sheaf Carrier—
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Springs. Shuttle—
American Tube & Stamping Co., Bridgeport, Ct.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Springs. Spiral

(See Springs, Steel.)

Springs. Squaring Shear

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Railway Steel Spring Co., 71 Broadway, New York.
Raymond Mfg. Co., Corry, Pa.

Springs. Steel

American Steel & Wire Co., The Rookery, Chicago, Ill.
Wallace Barnes Co., Bristol, Ct.
Cary Spring Works, 240-242 W. 29th St., New York.
Dunbar Bros. Co., Bristol, Ct.
Farist Steel Co., Bridgeport, Ct.
Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
R. C. Jenkinson & Co., Newark, N. J.
Kilborn & Bishop Co., New Haven, Ct.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
New York Wire & Spring Co., Hoboken, N. J.

Parker Wire Goods Co., Worcester, Mass.
Thomas Prosser & Son, 26 Platt St., N. Y.
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.
Tuck Mfg. Co., Brockton, Mass.
Union Spring & Mfg. Co., New Kensington, Pa.

Worcester Pressed Steel Co., Worcester, Mass.

(See also Springs, Oil Tempered.)

Springs. Talking Machine—
Wallace Barnes Co., Bristol, Ct.

Springs. Tedder Fork—
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.
Sabin Machine Co., Montpelier, Vt.

Springs. Trace—
Miller & Van Winkle, Brooklyn, N. Y.
Raymond Mfg. Co., Corry, Pa.

Springs. Trolley—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgeport Chain Co., Bridgeport, Ct.
Cary Spring Works, 240-242 W. 29th St., New York.

Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
New York Wire & Spring Co., Hoboken, N. J.

Railway Steel Spring Co., 71 Broadway, New York.
Raymond Mfg. Co., Corry, Pa.

Springs. Typewriter—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Wallace Barnes Co., Bristol, Ct.
Cary Spring Works, 240-242 W. 29th St., New York.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Railway Steel Spring Co., 71 Broadway, New York.

Raymond Mfg. Co., Corry, Pa.
Tuck Mfg. Co., Brockton, Mass.

Springs. Valve

Ashton Valve Co., Boston, Mass.
Wallace Barnes Co., Bristol, Ct.
Cary Spring Works, 240-242 W. 29th St., New York.

Fort Pitt Spring & Mfg. Co., Pittsburgh, Pa.

W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

- Railway Steel Spring Co., 71 Broadway,
New York
- Raymond Mfg. Co., Corry, Pa.
- Springs, Wagon Brake—**
W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
- Miller & Van Winkle, Brooklyn, N. Y.
- Morgan Spring Co., Worcester, Mass.
- Railway Steel Spring Co., 71 Broadway,
New York
- Raymond Mfg. Co., Corry, Pa.
- Springs, Wagon Pole—**
Beecher Draught Spring Co., New Haven,
Ct.
- Bridgeport Chain Co., Bridgeport, Ct.
- Cary Spring Works, 240-242 W. 29th St.,
New York
- Fernald Mfg. Co., North East, Pa.
- W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
- Miller & Van Winkle, Brooklyn, N. Y.
- Morgan Spring Co., Worcester, Mass.
- Railway Steel Spring Co., 71 Broadway,
New York
- Raymond Mfg. Co., Corry, Pa.
- Springs, Wagon Seat—**
Harrow Spring Co., Kalamazoo, Mich.
- Springs, Washing Machine—**
Miller & Van Winkle, Brooklyn, N. Y.
- Railway Steel Spring Co., 71 Broadway,
New York
- Raymond Mfg. Co., Corry, Pa.
- Springs, Watch—**
American Steel & Wire Co., The Rookery,
Chicago, Ill.
- Cary Spring Works, 240-242 W. 29th St.,
New York
- Springs, Wind Mill—**
American Steel & Wire Co., The Rookery,
Chicago, Ill.
- Farist Steel Co., Bridgeport, Ct.
- Fort Pitt Spring & Mfg. Co., Pittsburgh,
Pa.
- W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
- Miller & Van Winkle, Brooklyn, N. Y.
- Morgan Spring Co., Worcester, Mass.
- Railway Steel Spring Co., 71 Broadway,
New York
- Raymond Mfg. Co., Corry, Pa.
- Springs, Window—**
American Steel & Wire Co., The Rookery,
Chicago, Ill.
- Cary Spring Works, 240-242 W. 29th St.,
New York
- W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
- Miller & Van Winkle, Brooklyn, N. Y.
- Morgan Spring Co., Worcester, Mass.
- Railway Steel Spring Co., 71 Broadway,
New York
- Reading Hardware Co., Reading, Pa.
- Stanley Works, New Britain, Ct.
- Springs, Window Screen—**
Wallace Barnes Co., Bristol, Ct.
- Caldwell Mfg. Co., Rochester, N. Y.
- Miller & Van Winkle, Brooklyn, N. Y.
- Railway Steel Spring Co., 71 Broadway,
New York
- Springs, Wire—**
American Steel & Wire Co., The Rookery,
Chicago, Ill.
- Wallace Barnes Co., Bristol, Ct.
- Bridgeport Chain Co., Bridgeport, Ct.
- Cary Spring Works, 240-242 W. 29th St.,
New York
- John-Chatillon & Sons, 85 Cliff St., N. Y.
- Dunbar Bros. Co., Bristol, Ct.
- Fort Pitt Spring & Mfg. Co., Pittsburgh,
Pa.
- W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
- R. C. Jenkinson & Co., Newark, N. J.
- Ludlow-Saylor Wire Co., St. Louis, Mo.
- Miller & Van Winkle, Brooklyn, N. Y.
- Morgan Spring Co., Worcester, Mass.
- Parker Wire Goods Co., Worcester, Mass.
- Railway Steel Spring Co., 71 Broadway,
New York
- Raymond Mfg. Co., Corry, Pa.
- Sabin Machine Co., Montpelier, Vt.
- Tuck Mfg. Co., Brockton, Mass.
- Springs, Wringer—**
American Steel & Wire Co., The Rookery,
Chicago, Ill.
- Bridgeport Chain Co., Bridgeport, Ct.
- Fort Pitt Spring & Mfg. Co., Pittsburgh,
Pa.
- W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.
- Miller & Van Winkle, Brooklyn, N. Y.
- Morgan Spring Co., Worcester, Mass.
- Parker Wire Goods Co., Worcester, Mass.
- Railway Steel Spring Co., 71 Broadway,
New York
- Raymond Mfg. Co., Corry, Pa.
- Sprinklers, Lawn—**
Enterprise Mfg. Co. of Pa., Philadelphia,
Pa.
- Humphreys Mfg. Co., Mansfield, O.
- F. E. Kohler & Co., Canton, O.
- Laders, Frary & Clark, New Britain, Ct.
- John H. McGowan Co., Cincinnati, O.
- Philadelphia Lawn Mower Co., 3100-3109
Chestnut St., Philadelphia, Pa.
- Sprocket Wheel Cutters—**
(See Cutters, Sprocket Wheel.)
- Sprocket Wheels—**
(See Wheels, Sprocket.)
- Spuds, Bark—**
L. & J. White Co., Buffalo, N. Y.
- Spuds, Tobacco and Dande-
lion—**
American Fork & Hoe Co., Cleveland, O.
- Geo. H. Bishop & Co., Cincinnati, O.
- F. E. Kohler & Co., Canton, O.
- Spurs, Riding—**
North & Judd Mfg. Co., New Britain, Ct.
- Square and Gauge Com-
bined—**
(See Gauge and Square, Combined.)
- Square Attachments—**
Tower & Lyon Co., 95 Chambers St., N. Y.
- Square Levels—**
(See Levels, Bit and Square.)
- Squares, Caliper—**
Brown & Sharpe Mfg. Co., Providence,
R. I.
- L. S. Starrett Co., Athol, Mass.
- Squares, Center—**
Brown & Sharpe Mfg. Co., Providence,
R. I.
- Hoggson & Pettis Mfg. Co., New Haven,
Ct.
- L. S. Starrett Co., Athol, Mass.
- Squares, Combination—**
Brown & Sharpe Mfg. Co., Providence,
R. I.
- Goodell-Pratt Co., Greenfield, Mass.
- L. S. Starrett Co., Athol, Mass.
- Squares, Double—**
L. S. Starrett Co., Athol, Mass.

- Squares, Iron and Steel—**
Brown & Sharpe Mfg. Co., Providence, R. I.
Henry Diston & Sons, Philadelphia, Pa.
C. E. Jennings & Co., 42 Murray St., New York.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
L. S. Starrett Co., Athol, Mass.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
- Squares, Machinists' —**
Brown & Sharpe Mfg. Co., Providence, R. I.
Henry Diston & Sons, Philadelphia, Pa.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
L. S. Starrett Co., Athol, Mass.
- Squares, T—**
Henry Diston & Sons, Philadelphia, Pa.
Keuffel & Esser Co., 127 Fulton St., N. Y.
L. S. Starrett Co., Athol, Mass.
- Squares, Try and Miter—**
Brown & Sharpe Mfg. Co., Providence, R. I.
Henry Diston & Sons, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
C. E. Jennings & Co., 42 Murray St., New York.
Keuffel & Esser Co., 127 Fulton St., N. Y.
Stanley Rule & Level Co., New Britain, Ct.
L. S. Starrett Co., Athol, Mass.
Wiebusch & Hilger, Ltd., 9-15 Murray St., New York.
- Squaring Instruments—**
(See Instruments, Leveling and Squaring.)
- Squeezers, Lemon—**
Arcade Mfg. Co., Freeport, Ill.
Erie Specialty Co., Erie, Pa.
Griswold Mfg. Co., Erie, Pa.
Landers, Frary & Clark, New Britain, Ct.
Mosteller Mfg. Co., 79 Dearborn St., Chicago, Ill.
Charles Parker Co., Meriden, Ct.
John Sommer's Son, Newark, N. J.
Wrightsville Hardware Co., Wrightsville, Pa.
- Squeezers, Lime—**
Erie Specialty Co., Erie, Pa.
- Squeezers, Puddle Ball—**
George A. Hogg Iron & Steel Foundry Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Philadelphia Roll & Machine Co., 231 St. & Washington Ave., Philadelphia.
United Engineering & Foundry Co., Pittsburgh, Pa.
- Squeezing Machines, Can—**
E. W. Bliss Co., Brooklyn, N. Y.
Chas. Leffler & Co., Brooklyn, N. Y.
Niagara Machine & Tool Works, Buffalo.
- Stable Fixtures—**
Andrews Wire & Iron Works, Rockford, Ill.
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Buffalo Wire Works Co., Buffalo, N. Y.
S. Cheney & Son, Manlius, N. Y.
Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
Dufur & Co., Baltimore, Md.
Enterprise Foundry & Fence Co., Indianapolis, Ind.
- Estey Wire Works, 59 Fulton St., N. Y.**
- Gilbert & Bennett Mfg. Co., 27 Broadway, New York.
Glen Mfg. Co., Ellwood City, Pa.
Ludlow-Saylor Wire Co., St. Louis, Mo.
National Iron & Wire Co., Cleveland, O.
Nimmo Fence & Wire Works Co., Norwood, O.
Novelty Iron Works, Sterling, Ill.
Stewart Iron Works Co., Cincinnati, O.
W. S. Tyler Co., Cleveland, O.
Van Dorn Iron Works Co., Cleveland, O.
- Stackers for Lumber—**
Soule Steam Feed Works, Meridian, Miss.
- Stacks, Steel—**
(See Chimneys, Steel.)
- Stains, Shingle, Wood, &c.—**
Samuel Cabot, Inc., Boston, Mass.
- Stains, Waterproof, Cement and Brick—**
Samuel Cabot, Inc., Boston, Mass.
- Stair Trends, Brass—**
(See Plates, Brass Step.)
- Stairs, Iron and Steel—**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
Forest City Steel & Iron Co., Cleveland.
Glen Mfg. Co., Ellwood City, Pa.
W. N. Kratzer & Co., Pittsburgh, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Stewart Iron Works Co., Cincinnati, O.
Van Dorn Iron Works Co., Cleveland, O.
- Stake Chains—**
(See Chains, Wagon and Fancy.)
- Stake Holders, Wagon—**
(See Holders, Stake Wagon.)
- Stakes and Sticks, Plant—**
Boston & Lockport Block Co., Boston, Mass.
- Stakes, Cornice Makers'—**
Niagara Machine & Tool Works, Buffalo, N. Y.
- Stakes, Tinner's—**
Niagara Machine & Tool Works, Buffalo.
Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Staking Out Chains—**
(See Chains, Pickets, &c.)
- Stall Hitchers—**
(See Posts, Hitching.)
- Stamp Mill Wearing Parts—**
Chrome Steel Works, Chrome, N. J.
- Stamped Metal Work to Order—**
(See Metal Work, Milled, Turned or Stamped to Order, Also Sheet Metal Work.)
- Stamping, Sheet Metal—**
Advance Machine Works, Brooklyn, N. Y.
Advance Mfg. Co., Racine Junction, Wis.
American Rivet Co., New Haven, Ct.
American Sheet and Tin Plate Co., Pittsburgh, Pa.
American Tube & Stamping Co., Bridgeport, Ct.
Avery Stamping Co., Cleveland, O.
Bossert Electric Construction Co., Utica, N. Y.
Boston Pressed Metal Co., Worcester, Mass.
Bridgeport Hardware Mfg. Co., Bridgeport, Ct.
A. N. Clark & Son, Plainville, Ct.
W. J. Clark Co., Salem, O.
Clark Novelty Co., Rochester, N. Y.

Cleveland Stamping & Tool Co., Cleveland, O.
 Commercial Can Co., 107 N. Lincoln St., Chicago, Ill.
 Crosby Co., Buffalo, N. Y.
 Eastern Machine & Stamping Co., Providence, R. I.
 Erie Stamping & Mfg. Co., Erie, Pa.
 Fanner Mfg. Co., Cleveland, O.
 Gem Mfg. Co., Boston, Mass.
 Gem Mfg. Co., Pittsburgh, Pa.
 Globe Machine & Stamping Co., Cleveland, O.
 Goodwin & Kintz Co., Winsted, Ct.
 Grabler Mfg. Co., Cleveland, O.
 Gueder & Paeschke Mfg. Co., Milwaukee, Wis.
 R. C. Jenkinson & Co., Newark, N. J.
 John R. Keim Mills, Inc., Buffalo, N. Y.
 E. Konigslow Stamping & Tool Works, Cleveland, O.
 Otto Konigslow Mfg. Co., Cleveland, O.
 Mathews Mfg. Co., Worcester, Mass.
 H. A. Matthews Mfg. Co., Seymour, Ct.
 Metal Specialties Mfg. Co., Chicago, Ill.
 Frank Mossberg Co., Attleboro, Mass.
 Mossberg Wrench Co., Central Falls, R. I.
 John L. Parker Co., Worcester, Mass.
 Parker Wire Goods Co., Worcester, Mass.
 Arthur T. Rutler & Co., 256 B'way, N. Y.
 Wm. B. Scaife & Sons Co., Pittsburgh.
 Schatz Hardware Mfg. Co., Chappaqua, N. Y.
 J. H. Sessions & Son, Bristol, Ct.
 M. I. Smith, Bristol, Ct.
 Geo. A. Smith Co., Worcester, Mass.
 Thomas Smith Co., Worcester, Mass.
 W. H. Stearns Stamping Co., Worcester, Mass.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 W. & S. Mfg. Co., Worcester, Mass.
 E. B. Wagner Mfg. Co., North Milwaukee, Wis.
 Waterbury Brass Co., Waterbury, Ct.
 Worcester Pressed Steel Co., Worcester, Mass.
 Worcester Stamping Co., Worcester, Mass.
 Wrought Washer Mfg. Co., Milwaukee.
Stampings, Bicycle—
 (See Bicycle Parts.)
Stamps and Dies, Steel—
 Adriance Machine Works, Brooklyn, N. Y.
 August Becker Engraving Co., Boston, Mass.
 Blake & Johnson Co., Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Consolidated Press & Tool Co., Hastings, Mich.
 Eastern Machine & Stamping Co., Providence, R. I.
 Ferracute Machine Co., Bridgeton, N. J.
 Globe Machine & Stamping Co., Cleveland, O.
 Hillis & Jones Co., Wilmington, Del.
 E. Konigslow Stamping & Tool Works, Cleveland, O.
 Otto Konigslow Mfg. Co., Cleveland, O.
 Chas. Leffler & Co., Brooklyn, N. Y.
 Metal Specialties Mfg. Co., Chicago, Ill.
 Frank Mossberg Co., Attleboro, Mass.
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Richard Mfg. Co., Bloomsburg, Pa.
 Schatz Hardware Mfg. Co., Chappaqua, N. Y.

Schwerdtle Stamp Co., Bridgeport, Ct.
 M. I. Smith, Bristol, Ct.
 Geo. A. Smith Co., Worcester, Mass.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 V. & O. Press Co., Brooklyn, N. Y.
 W. & S. Mfg. Co., Worcester, Mass.
 (See also Dies.)
Stamps, Brass—
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
Stamps, Dating—
 American Railway Supply Co., 24 Park Place, New York.
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
 R. Woodman Mfg. & Supply Co., Boston.
Stamps, Rubber—
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
Stamps, Self Inking—
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
Stamps, Steel—
 (See Stamps and Dies, Steel.)
Stamps, Steel Name—
 A. G. Butler, 284-286 Pearl St., N. Y.
 E. Konigslow Stamping & Tool Works, Cleveland, O.
 Geo. M. Ness, Jr., 61 Fulton St., N. Y.
 Schwerdtle Stamp Co., Bridgeport, Ct.
Stamps, Time—
 Nanz Clock Co., 127 Duane St., N. Y.
 Riggs & Bro., 310 Market St., Philadelphia, Pa.
 Schwerdtle Stamp Co., Bridgeport, Ct.
Stanchions, Cattle—
 Warsaw Elevator Co., Warsaw, N. Y.
Stanchions, Hand Rope—
 W. & J. Tiebout, 118 Chambers St., N. Y.
Standards and Sockets, Cannon Top—
 E. D. Clapp Mfg. Co., Auburn, N. Y.
Standpipes, Railroad—
 Best Mfg. Co., Pittsburgh, Pa.
Standpipes, Steel—
 American Bridge Co. of New York, 42 Broadway, New York.
 A. D. Granger Co., West St. Bldg., N. Y.
 E. Keeler Co., Williamsport, Pa.
 Meehan Boiler & Construction Co., Lowellville, O.
 R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.
 Petroleum Iron Works Co., Sharon, Pa.
 Ritter-Conley Mfg. Co., Pittsburgh, Pa.
 Wm. B. Scaife & Sons Co., Pittsburgh.
 Sheffield Car Co., Three Rivers, Mich.
 Tudor Boiler Mfg. Co., Cincinnati, O.
 R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
Stands and Holders, Bicycle—
 City Forge & Iron Works, Dayton, O.
 F. E. Myers & Bro., Ashland, O.
Stands and Lashes—
 (See Lashes and Stands, Shoe.)
Stands and Racks, Ginger Ale—
 Wire Goods Co., Worcester, Mass.
Stands, Coffee Pot—
 Columbia Grey Iron Co., Columbia, Pa.
 Peck, Stow & Wilcox Co., 21 Murray St., New York.
Stands, Coffee Pot, Wire—
 (See Household Articles, Wire.)

Stands, Display—
Dufur & Co., Baltimore, Md.

Stands, Emery Wheel and Polishing—

Royersford Foundry & Machine Co.,
Royersford, Pa.

Stands, Fire Arms—
Wrightsville Hardware Co., Wrightsville,
Pa.

Stands, Floor—
H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.

Dodge Mfg. Co., Mishawaka, Ind.

Falls Rivet & Machine Co., Cuyahoga
Falls, O.

Jones & Laughlin Steel Co., Pittsburgh.

Lunkenheimer Co., Cincinnati, O.

Stands, Flower Pot—
Andrews Wire & Iron Works, Rockford,
Ill.

Buffalo Wire Works Co., Buffalo, N. Y.

Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

Eatey Wire Works Co., 65 Fulton St.,
N. Y.

Gilbert & Bennett Mfg. Co., 27 Broad-
way, New York.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Nimmo Fence & Wire Works Co., Nor-
wood, O.

Stands, Folding Game—
Andrews Wire & Iron Works, Rockford,
Ill.

Stands, Gas Pipe—
Loew Mfg. Co., Cleveland, O.

Stands, Jardiniere—
Andrews Wire & Iron Works, Rockford,
Ill.

Stands, Micrometer—
L. S. Starrett Co., Athol, Mass.

Stands, Mule Pulley—
H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

Falls Rivet & Machine Co., Cuyahoga
Falls, O.

Jones & Laughlin Steel Co., Pittsburgh.

Poole Engineering & Machine Co., Balti-
more, Md.

Stands, Sad Iron—
Columbia Grey Iron Co., Columbia, Pa.

Fanner Mfg. Co., Cleveland, O.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Youngstown Iron & Steel Roofing Co.,
Youngstown, O.

Stands, Tool, Portable—
Western Tool & Mfg. Co., Springfield, O.

Stands, Umbrella—
Andrews Wire & Iron Works, Rockford,
Ill.

Bethlehem Foundry & Machine Co., So.
Bethlehem, Pa.

Buffalo Wire Works Co., Buffalo, N. Y.

W. J. Clark Co., Salem, O.

Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

Eatey Wire Works Co., 59 Fulton St.,
N. Y.

Goodwin & Kintz Co., Winsted, Ct.

Ludlow-Saylor Wire Co., St. Louis, Mo.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Stands, Valve Floor—
Kennedy Valve Mfg. Co., 57 Beekman St.,
New York.

Stands, Vise, Portable—
Western Tool & Mfg. Co., Springfield, O.

Stands, Water Cooler—
Chicago Wire Chair Co., 129 N. La Salle
Ave., Chicago, Ill.

Staple Drivers—
(See Drivers, Staple.)

Staple Machinery—
Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.

E. J. Manville Machine Co., Waterbury,
Ct.

F. B. Shuster Co., New Haven, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Staple Pullers—
(See Pullers, Staple.)

Staples—
(See Wrought Iron Goods; also Staples,
Galvanized.)

**Staples and Loops, Furni-
ture—**

Grand Crossing Tack Co., Grand Cross-
ing, Ill.

E. H. Titchener & Co., Binghamton,
N. Y.

Staples, Blind—
E. H. Titchener & Co., Binghamton, N. Y.

Wire Goods Co., Worcester, Mass.

Staples, Cooperage—
E. H. Titchener & Co., Binghamton, N. Y.

C. E. & E. P. Townsend Co., New Brigh-
ton, Pa.

Wire Goods Co., Worcester, Mass.

**Staples, Galvanized or Pol-
ished—**

Keystone Steel & Wire Co., Peoria, Ill.

Rochelle Wire Mfg. Co., Rochelle, Ill.

Staples, Nutted—
Upon Nut Co., Cleveland, O.

Staples, Wire—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Clinton Wire Cloth Co., Clinton, Mass.

Cobb & Drew, Inc., Plymouth, Mass.

Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.

Dillon-Griswold Wire Co., Sterling, Ill.

Dufur & Co., Baltimore, Md.

W. D. Gibson Co., Huron and Kingsbury
Sts., Chicago, Ill.

Gilbert & Bennett Mfg. Co., 27 Broad-
way, New York.

Grand Crossing Tack Co., Grand Cross-
ing, Ill.

Milwaukee Tack Co., Milwaukee, Wis.

Morgan Spring Co., Worcester, Mass.

Parker Wire Goods Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Com-
merce St., Philadelphia, Pa.

Pittsburgh Steel Co., Pittsburgh, Pa.

Rochelle Wire Mfg. Co., Rochelle, Ill.

Spencer Wire Co., Worcester, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.

E. H. Titchener & Co., Binghamton, N. Y.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Starters, Bung—
Boston & Lockport Block Co., Boston.

Piqua Handle & Mfg. Co., Piqua, O.

Starters, Car—

(See Pushers, Car.)

Station House Cages—

(See Jails, Jail Cells, &c.)

Stationers' Hardware (Ink-stands, Clips, Pin Cushions, Pen Racks and Trays, Erasers, &c.)—

Blake & Johnson Co., Waterbury, Ct.
Bridgeport Hardware Mfg. Co., Bridge-
port, Ct.

Goodwin & Kintz Co., Winsted, Ct.
Lauders, Frary & Clark, New Britain, Ct.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Susquehanna Casting Co., Wrightsville,
Pa.

United States Clothes Pin Co., Montpe-
lier, Vt.

Stationers' Wire Goods.

Desk Baskets, &c.—

Kilbourne Mfg. Co., Troy, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Stations, Portable, Railway

and Wireless Telegraph—

Portable Construction Co., 16 So. William
St., New York.

Stationary Lawn—

Stewart Iron Works Co., Cincinnati, O.

Stave Knives—

(See Knives, Machine.)

Stave Sawing and Finishing

Machinery—

Peter Gerlach Co., Cleveland, O.

Stay Bolt Cutters, Rollers—

(See Cutters, Rollers.)

Stay Bolt Iron—

(See Iron, Rivet and Stay Bolt.)

Stay Bolts, Roller—

(See Bolts, Boiler Stay.)

Stay Bolts, Rollers—

(See Bolts, Rollers.)

Stay Rollers—

(See Rollers, Stay.)

Stays and Clips, Fence—

Nimmo Fence & Wire Works Co., Nor-
wood, O.

Stays, Bicycle—

(See Bicycle Parts.)

Stays, Transom—

Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Stays, Trunk Lid—

R. C. Jenkinson & Co., Newark, N. J.

J. H. Sessions & Son, Bristol, Ct.

Steak Pounders—

(See Pounders, Steak.)

Steam Fitters' Supplies—

Humphreys Mfg. Co., Mansfield, O.

Lunkenheimer Co., Cincinnati, O.

John H. McGowan Co., Cincinnati, O.

Chas. Miller & Son Co., Utica, N. Y.

Steel, Acid Open Hearth—

Andrews Steel Co., Newport, Ky.
Vulcan Crucible Steel Co., of Pittsburgh,
Aliquippa, Pa.

Steel, Agricultural—

Inland Steel Co., First National Bank
Bldg., Chicago, Ill.

Steel, Automobile Frame—

Bethlehem Steel Co., So. Bethlehem, Pa.
Thomas Prosser & Son, 26 Platt St., N. Y.

Vulcan Crucible Steel Co., of Pittsburgh,
Aliquippa, Pa.

Steel, Automobile Spring—

Vulcan Crucible Steel Co., of Pittsburgh,
Aliquippa, Pa.

Steel, Axe—

Colonial Steel Co., Pittsburgh, Pa.

Farist Steel Co., Bridgeport, Ct.

Vulcan Crucible Steel Co., of Pittsburgh,
Aliquippa, Pa.

Steel Balls, Bars, &c.—

(See Balls, Bars, &c.)

Steel, Band Saw—

American Steel & Wire Co., The Rookery,
Chicago, Ill.

Henry Disston & Sons, Philadelphia, Pa.

Steel Bars, Boiler Staybolt—

Falls Hollow Staybolt Co., Cuyahoga
Falls, O.

Steel, Basic Open Hearth—

Andrews Steel Co., Newport, Ky.
Bethlehem Steel Co., So. Bethlehem, Pa.

La Belle Iron Works, Steubenville, O.

Alan Wood Iron & Steel Co., 519 Arch
St., Philadelphia, Pa.

Steel Brokers and Mer-

chants—

(See Iron and Steel Brokers and Mer-
chants.)

Steel, Chrome—

Chrome Steel Works, Chrome, N. J.

Colonial Steel Co., Pittsburgh, Pa.

Thomas Prosser & Son, 26 Platt St., N. Y.

Steel, Chrome, Nickel—

Bethlehem Steel Co., So. Bethlehem, Pa.

Farist Steel Co., Bridgeport, Ct.

William Jessop & Sons, Ltd., 91 John St.,
New York.

Thomas Prosser & Son, 26 Platt St., N. Y.

Steel, Clock Spring—

Cary Spring Works, 240-242 W. 23rd St., N. Y.

S. & C. Wardlow, 95 John St., N. Y.

Steel, Cold Drawn Shapes—

Henry Disston & Sons, Philadelphia, Pa.

Finished Steel Co., Youngstown, O.

Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.

C. Pardee Works, Perth Amboy, N. J.

MERCHANTS.

Arthur C. Harvey, Boston, Mass.

Geo. Nash Co., 24 S. Clinton St., Chi-
cago, Ill.

Charles G. Stevens Co., 60 S. Canal St.,
Chicago, Ill.

Edgar T. Ward & Sons, Boston, Mass.

Steel, Cold Rolled—

American Tube & Stamping Co., Bridge-
port, Ct.

Cary Spring Works, 240-242 W. 23rd St.,
New York.

Columbia Steel Co., Elyria, O.

Henry Disston & Sons, Philadelphia, Pa.

Empire Iron & Steel Co., Niles, O.

Wm. Jessop & Sons, Ltd., 91 John St.,
New York.

Jones & Laughlin Steel Co., Pittsburgh.

Miller & Van Winkle, Brooklyn, N. Y.

Morris & Bailey Steel Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

Superior Steel Co., Carnegie, Pa.

S. & C. Wardlow, 95 John St., N. Y.

Washburn Wire Co., Phillipsdale, R. I.

West Leechburg Steel Co., Pittsburgh, Pa.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Denman & Davis, 85-91 Lafayette St.,
New York.

Dilworth, Gilbert & Towne, Inc., 35-37
Wooster St., New York.

General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.
Geo. Nash Co., 24 S. Clinton St., Chi-
cago, Ill.

Patriarche & Bell, 215 Pearl St., N. Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee
Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.

Charles G. Stevens Co., 60 So. Canal St.,
Chicago, Ill.

Edgar T. Ward & Sons, Boston, Mass.
Wheelock, Lovejoy & Co., 23 Cliff St.,
New York.

Steel, Cold Rolled, Deep

Drawing—

American Tube & Stamping Co., Bridge-
port, Ct.

Columbia Steel Co., Elyria, O.
Empire Iron & Steel Co., Niles, O.

Morris & Bailey Steel Co., Pittsburgh, Pa.

Steel, Cold Rolled Sheet.

Hot Rolled Sheet—

(See Sheet Steel.)

Steel, Cold Rolled Spring—

Columbia Steel Co., Elyria, O.
Morris & Bailey Steel Co., Pittsburgh, Pa.

Steel, Cold Rolled Strip—
American Tube & Stamping Co., Bridge-
port, Ct.

Columbia Steel Co., Elyria, O.
Henry Disston & Sons, Philadelphia, Pa.

Griffin Mfg. Co., Erie, Pa.
Miller & Van Winkle, Brooklyn, N. Y.

Morris & Bailey Steel Co., Pittsburgh, Pa.
Stanley Works, New Britain, Ct.

Superior Steel Co., Carnegie, Pa.
S. & C. Wardlow, 95 John St., N. Y.

West Leechburg Steel Co., Pittsburgh, Pa.
Worcester Pressed Steel Co., Worcester,
Mass.

MERCHANTS.

Hermann Boker & Co., 101-103 Duane St.,
New York.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-91 Lafayette St.,
New York.

Dilworth, Gilbert & Towne, Inc., 35-37
Wooster St., New York.

General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.
Geo. Nash Co., 24 So. Clinton St., Chi-
cago, Ill.

Joseph T. Ryerson & Son, Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.

Charles G. Stevens Co., 58-60 S. Canal
St., Chicago, Ill.

Edgar T. Ward & Sons, Boston, Mass.
Wheelock, Lovejoy & Co., 23 Cliff St.,
New York.

Steel, Corset—

American Steel & Wire Co., The Rookery,
Chicago, Ill.

American Tube & Stamping Co., Bridge-
port, Ct.

Carv Spring Works, 240-242 W. 29th St.,
New York.

Steel, Crucible Cast—

Bancroft & Co., Philadelphia, Pa.
Philadelphia, Pa.

Rome Steel Works, Chrome, N. J.

Colonial Steel Co., Pittsburgh, Pa.

Henry Disston & Sons, Philadelphia, Pa.
Farist Steel Co., Bridgeport, Ct.

Hobson, Houghton & Co., Ltd., 21 Cliff
St., New York.

John Hingsworth Steel Co., Frankford,
Philadelphia, Pa.

Wm. Jessop & Sons, Ltd., 91 John St.,
New York.

Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.

Lebanon Steel Casting Co., Lebanon, Pa.
Samuel Osborn & Co., Boston, Mass.

Thos. Prosser & Son, 26 Platt St., N. Y.
Vulcan Crucible Steel Co. of Pittsburgh,
Aliquippa, Pa.

S. & C. Wardlow, 95 John St., N. Y.

MERCHANTS.

Hermann Boker & Co., 101-103 Duane St.,
New York.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-91 Lafayette St.,
New York.

Dilworth, Gilbert & Towne, Inc., 35-37
Wooster St., New York.

General-Supply-Iron-Steel & Rail Co.,
Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.
Geo. Nash Co., 24 S. Clinton St., Chi-
cago, Ill.

Patriarche & Bell, 215 Pearl St., N. Y.
Charles G. Stevens Co., 58-60 S. Canal St.,
Chicago, Ill.

Swedish Iron & Steel Corporation, 16 Ex-
change Place, New York.

Wheelock, Lovejoy & Co., 23 Cliff St.,
New York.

Steel, Cutlery—

Henry Disston & Sons, Philadelphia, Pa.
Farist Steel Co., Bridgeport, Ct.

Vulcan Crucible Steel Co. of Pittsburgh,
Aliquippa, Pa.

S. & C. Wardlow, 95 John St., New York.

Steel, Die—

Colonial Steel Co., Pittsburgh, Pa.
Henry Disston & Sons, Philadelphia, Pa.

Farist Steel Co., Bridgeport, Ct.
Wm. Jessop & Sons, Ltd., 91 John St.,
New York.

Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.

Pittsburgh Tool Steel Wire Co., Monaca,
Pa.

Thos. Prosser & Son, 26 Platt St., N. Y.
Vulcan Crucible Steel Co. of Pittsburgh,
Aliquippa, Pa.

S. & C. Wardlow, 95 John St., New York.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-91 Lafayette St.,
New York.

Arthur C. Harvey Co., Boston, Mass.
Geo. Nash Co., 24 S. Clinton St., Chi-
cago, Ill.

Patriarche & Bell, 215 Pearl St., N. Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee
Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted
St., Chicago, Ill.

Charles G. Stevens Co., 58-60 S. Canal
St., Chicago, Ill.

Swedish Iron & Steel Corporation, 16 Ex-
change Place, New York.

Steel, Double Shear—

Colonial Steel Co., Pittsburgh, Pa.

Wm. Jessop & Sons, Ltd., 91 John St., New York.

S. & C. Wardlow, 95 John St., N. Y.

Steel, File—
Bethlehem Steel Co., So. Bethlehem, Pa.
Farist Steel Co., Bridgeport, Ct.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.

S. & C. Wardlow, 95 John St., N. Y.

Steel File Cases—
(See Cases, Document and File.)

Steel Goods Brackets—
(See Brackets, Shovel, Hoe, Rake, Fork, &c.)

Steel Goods Racks—
(See Racks, Steel Goods.)

Steel, Gun Barrel—
Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.

Steel, Hammer—
Braeburn Steel Co., Braeburn, Pa.
Colonial Steel Co., Pittsburgh, Pa.

Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.

Steel, High Speed—
Bethlehem Steel Co., So. Bethlehem, Pa.
Cammell, Laird & Co., Ltd., 132-B Front St., New York.

Colonial Steel Co., Pittsburgh, Pa.

Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.

Wm. Jessop & Sons, 91 John St., N. Y.

Samuel Osborn & Co., Boston, Mass.

Thos. Frosser & Son, 26 Platt St., N. Y.

Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.

S. & C. Wardlow, 95 John St., N. Y.

A. P. Whitteman & Co., 233-237 Cherry St., Philadelphia, Pa.

MERCHANTS.

Denman & Davis, 85-91 Lafayette St., New York.

Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

F. R. Phillips & Sons Co., Pennsylvania Bldg., Philadelphia, Pa.

Swedish Iron & Steel Corporation, 16 Exchange Place, New York.

Edgar T. Ward & Sons, Boston, Mass.

Wheelock, Lovejoy & Co., 23 Cliff St., New York.

Steel, Hot Rolled Strip—
American Tube & Stamping Co., Bridgeport, Ct.

Superior Steel Co., Carnegie, Pa.

West Leechburg Steel Co., Pittsburgh, Pa.

Wheelock, Lovejoy & Co., 23 Cliff St., New York.

Worcester Pressed Steel Co., Worcester, Mass.

Steel, Key—
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Pittsburgh Tool Steel Co., Monaca, Pa.

Steel, Machine Knife—
Colonial Steel Co., Pittsburgh, Pa.

Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.

S. & C. Wardlow, 95 John St., New York.

Steel, Machinery—

Braeburn Steel Co., Braeburn, Pa.

Colonial Steel Co., Pittsburgh, Pa.

Henry Disston & Sons, Philadelphia, Pa.

Farist Steel Co., Bridgeport, Ct.

Morgan Construction Co., Worcester, Mass.

Morgan Engineering Co., Alliance, O.

Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Denman & Davis, 85-91 Lafayette St., New York.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.

Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Ogden & Wallace, 577 Greenwich St., N. Y.

Patriarche & Bell, 215 Pearl St., N. Y.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Charles G. Stevens Co., 60 S. Canal St., Chicago, Ill.

Steel, Magnet—
Farist Steel Co., Bridgeport, Ct.

Thomas Frosser & Son, 26 Platt St., N. Y.

Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.

Steel, Manganese—
Taylor Iron & Steel Co., High Bridge, N. J.

Steel, Merchant—
Bethlehem Steel Co., So. Bethlehem, Pa.

Farist Steel Co., Bridgeport, Ct.

La Belle Iron Works, Steubenville, O.

Steel, Mushet's Special—
Samuel Osborn & Co., Boston, Mass.

Steel, Nickel—
Baldwin Steel Co., 133 Reade St., N. Y.

Bethlehem Steel Co., So. Bethlehem, Pa.

Farist Steel Co., Bridgeport, Ct.

Wm. Jessop & Sons, Ltd., 91 John St., N. Y.

Thomas Frosser & Son, 26 Platt St., N. Y.

Steel, Pen—
Wm. Jessop & Sons, 91 John St., N. Y.

Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

S. & C. Wardlow, 95 John St., New York.

Steel, Pivot—
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Steel Plants, Open Hearth—
Morgan Construction Co., Worcester, Mass.

Wellman-Seaver-Morgan Co., Cleveland, O.

Steel, Plow—
Colonial Steel Co., Pittsburgh, Pa.

Steel Plow Soft Center—
Bourne-Fuller Co., Cleveland, O.

Colonial Steel Co., Pittsburgh, Pa.

MERCHANTS.

Hermann Boker & Co., 101-103 Duane St., New York.

Steel, Polished Hack Saw Frame—
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Steel Products—
(See Shapers, Pressed Steel.)

Steel, Reinforcing—
Inland Steel Co., First National Bank Bldg., Chicago, Ill.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Steel, Rock Drill—
Bethlehem Steel Co., So. Bethlehem, Pa.
Braeburn Steel Co., Braeburn, Pa.
Colonial Steel Co., Pittsburgh, Pa.
Farist Steel Co., Bridgeport, Ct.
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.
Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.

MERCHANTS.
Bourne-Fuller Co., Cleveland, O.
Patriarche & Bell, 215 Pearl St., N. Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
Swedish Iron & Steel Corporation, 16 Exchange Place, New York
Wheelock, Lovelock & Co., 23 Cliff St., N. Y.

Steel, Roller Bearing—
American Steel & Wire Co., The Rookery, Chicago, Ill.
Colonial Steel Co., Pittsburgh, Pa.
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Steel Rolls, Hardened.
Forged—
(See Rolls, Hardened, Forged Steel.)

Steel, Saw—
Colonial Steel Co., Pittsburgh, Pa.
Henry Disston & Sons, Philadelphia, Pa.
Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.
Wm. Jessop & Sons, Ltd., 91 John St., New York.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.
Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.
S. & C. Wardlow, 95 John St., N. Y.

Steel, Screw, in Round.
Square, &c.—
Finished Steel Co., Youngstown, O.

Steel, Self Hardening—
Armstrong Bros. Tool Co., Chicago, Ill.
Bethlehem Steel Co., So. Bethlehem, Pa.
Heller Bros. Co., Newark, N. J.
Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.

Wm. Jessop & Sons, 91 John St., N. Y.
Samuel Osborn & Co., Boston, Mass.
Thos. Prosser & Son, 26 Platt St., N. Y.
Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

MERCHANTS.
Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-91 Lafayette St., New York.
Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
Arthur C. Harvey Co., Boston, Mass.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.
Wm. S. Nicholls, 251 Broadway, N. Y.
Patriarche & Bell, 215 Pearl St., N. Y.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
Edgar T. Ward & Sons, Boston, Mass.

Steel Sheets Punched to Order—

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441 Pearl St., N. Y.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Steel Shelving—
(See Shelves and Shelving, Library, Factory, &c.)

Steel, Shovel—
Colonial Steel Co., Pittsburgh, Pa.
La Belle Iron Works, Steubenville, O.

Steel, Show Card—
American Sheet and Tin Plate Co., Pittsburgh, Pa.

Steel, Spring—
Bethlehem Steel Co., So. Bethlehem, Pa.
Colonial Steel Co., Pittsburgh, Pa.
Farist Steel Co., Bridgeport, Ct.
Harrow Spring Co., Kalamazoo, Mich.
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Patriarche & Bell, 215 Pearl St., N. Y.
Thomas Prosser & Son, 26 Platt St., N. Y.
Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.

Steel, Stamping Special—
La Belle Iron Works, Steubenville, O.
Superior Steel Co., Carnegie, Pa.
Youngstown Iron & Steel Roofing Co., Youngstown, O.

Steel, Swedish—
(See Iron and Steel, Swedish.)

Steel, Tap, Drawn—
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Steel, Tape Line—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Keuffel & Esser Co., 127 Fulton St., N. Y.
Steel, Tire—
Carnegie Steel Co., Pittsburgh, Pa.

Steel, Tool—
Bethlehem Steel Co., So. Bethlehem, Pa.
Braeburn Steel Co., Braeburn, Pa.
Colonial Steel Co., Pittsburgh, Pa.
Henry Disston & Sons, Philadelphia, Pa.
Farist Steel Co., Bridgeport, Ct.
Heller Bros. Co., Newark, N. J.
Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.

John. Illingworth Steel Co., Frankford, Philadelphia, Pa.
Wm. Jessop & Sons, 91 John St., N. Y.
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Samuel Osborn & Co., Boston, Mass.
Thos. Prosser & Son, 26 Platt St., N. Y.
Vulcan Crucible Steel Co. of Pittsburgh, Aliquippa, Pa.
S. & C. Wardlow, 95 John St., N. Y.

MERCHANTS.
Hermann Boker & Co., 101-103 Duane St., New York.
Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-91 Lafayette St., New York.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
Arthur C. Harvey Co., Boston, Mass.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.
Wm. S. Nicholls, 251 Broadway, N. Y.
Ogden & Wallace, 577 Greenwich St., N. Y.

Patriarche & Bell, 215 Pearl St., N. Y.
F. R. Phillips & Sons Co., Pennsylvania
Bldg., Philadelphia, Pa.
Joseph T. Ryerson & Son, 18 Milwaukee
Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.
Charles G. Stevens Co., 60 So. Canal St.,
Chicago, Ill.
Swedish Iron & Steel Corporation, 16 Ex-
change Place, New York.
Edgar T. Ward & Sons, Boston, Mass.
Wheelock, Lovejoy & Co., 23 Cliff St.,
New York.
A. P. Wittenman & Co., 233-237 Cherry St.,
Philadelphia, Pa.

Steel, Twist Drill Drawn—
Pittsburgh Tool Steel Wire Co., Monaca,
Pa.

Steel, Vanadium—
Colonial Steel Co., Pittsburgh, Pa.

Steel, Watch Spring—
Cary Spring Works, 240-242 W. 29th St.,
New York.

Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.

Miller & Van Winkle, Brooklyn, N. Y.
Geo. Nash Co., 24 S. Clinton St., Chi-
cago, Ill.

S. & C. Wardlow, 95 John St., N. Y.
**Steel, Welded, Chrome Steel
and Iron—**

Chrome Steel Works, Chrome, N. J.
Steel Welding—
(See Welding, Iron and Steel, Electric
and Thermit Processes.)

Steel, Wire—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Steel Wire Brushes—
(See Brushes, Steel Wire.)

Steel Wire, Cast—
(See Wire, Cast Steel.)

Steel Works Machinery—
(See Rolling Mill Machinery.)

Steels, Buffer and Scraper—
Tuck Mfg. Co., Brockton, Mass.

Steels, Butcher, &c.—
American Cutlery Co., Chicago, Ill.
John Chatillon & Sons, 85 Cliff St., N. Y.

Columbian Cutlery Co., Reading, Pa.
Goodell Co., Antrim, N. H.

Landers, Frary & Clark, New Britain, Ct.
Wilkinson Shear & Cutlery Co., Reading,
Pa.

Steelyards—
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Steering Gears—
Cambria Forge Co., Johnstown, Pa.

Steering Gears, Steam—
Pawling & Harnischfeger, Milwaukee.

Stems, Valve—
Bethlehem Steel Co., So. Bethlehem, Pa.
Thomas Prosser & Son, 26 Platt St., N. Y.

Stencils—
Geo. M. Ness, Jr., 61 Fulton St., N. Y.
Schwerdtle Stamp Co., Bridgeport, Ct.

Step Ladder Joints—
(See Joints, Step Ladder.)

Step Ladders—
(See Ladders, Step.)

Step Plates, Brass—
(See Plates, Brass, Step.)

Steps, Pole—
(See Telegraph and Telephone Pole Sup-
plies.)

Stereotype Metal—
Empire Metal Co., Syracuse, N. Y.
Theo. Hertz Metal Co., St. Louis, Mo.

Merchant & Evans Co., Philadelphia, Pa.
Pittsburgh White Metal Co., Pittsburgh.

Stereotyping—
St. Louis Electrotpe Foundry, St. Louis.

Sterilizers—
Gem Mfg. Co., Boston, Mass.
Stuart & Peterson Co., Burlington, N. J.

Stew Pans, Sectional—
(See Pans, Sectional Stew.)

Sticks, Clothes—
Wrightsville Hardware Co., Wrightsville, Pa.

**Sticks, Emery and Cornu-
dum—**
American Emery Wheel Works, Provi-
dence, R. I.

Sticks, Gambrel—
Piqua Handle & Mfg. Co., Piqua, O.

Sticks, Plant—
(See Stakes and Sticks.)

Sticks, Yard—
(See Yard Sticks.)

Stiffeners, Heel—
Louis Sacks, Newark, N. J.

Stills—
E. B. Badger & Sons Co., Boston, Mass.
Stuart & Peterson Co., Burlington, N. J.

Stills, Alcohol—
Buffalo Foundry & Machine Co., Buffalo,
N. Y.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.
Tudor Boiler Mfg. Co., Cincinnati, O.

Stills, Oil and Tar—
Meehan Boiler & Construction Co., Low-
ellville, O.

Petroleum Iron Works Co., Sharon, Pa.
Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Stirrers—
Joseph Dixon Crucible Co., Jersey City.

Stirrups, Machine—
Win. H. Haskell Mfg. Co., Pawtucket.

Stirrups, Riding—
North & Judd Mfg. Co., New Britain, Ct.

Stirrups, Timber—
(See Hangers and Stirrups.)

Stitching Machines, Wire—
(See Wire Stitching Machines.)

Stock, Milk Can—
(See Milk Can Stock.)

Stock Scales, Tanks—
(See Scales, Tanks.)

Stock Waterers—
S. Cheney & Son, Manlius, N. Y.

**Stocks and Dies, Black-
smiths—**
Butterfield & Co., Derby Line, Vt.

J. M. Carpenter Tap & Die Co., Paw-
tucket, R. I.

Stocks, Taps and Dies—
American Die & Tool Co., Reading, Pa.
American Iron & Steel Mfg. Co., Leba-
non, Pa.

Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
C. H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.
Butterfield & Co., Derby Line, Vt.
S. W. Card Mfg. Co., Mansfield,
J. M. Carpenter Tap & Die Co., Paw-
tucket, R. I.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Steel, Rock Drill—

Bethlehem Steel Co., So. Bethlehem, Pa.
Braeburn Steel Co., Braeburn, Pa.
Colonial Steel Co., Pittsburgh, Pa.
Farist Steel Co., Bridgeport, Ct.
Kidd Bros. & Burgher Steel Wire Co.,
Alliquippa, Pa.
Vulcan Crucible Steel Co. of Pittsburgh,
Alliquippa, Pa.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Patriarche & Bell, 215 Pearl St., N. Y.
Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
Swedish Iron & Steel Corporation, 16 Exchange Place, New York.
Wheelock, Lovejoy & Co., 23 Cliff St., N. Y.

Steel, Roller Bearing—

American Steel & Wire Co., The Rookery, Chicago, Ill.
Colonial Steel Co., Pittsburgh, Pa.
Kidd Bros. & Burgher Steel Wire Co., Alliquippa, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Steel Rolls, Hardened.

Forged.

(See Rolls, Hardened, Forged Steel.)

Steel, Saw—

Colonial Steel Co., Pittsburgh, Pa.
Henry Disston & Sons, Philadelphia, Pa.
Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.
Wm. Jessop & Sons, Ltd., 91 John St., New York.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.
Vulcan Crucible Steel Co. of Pittsburgh, Alliquippa, Pa.
S. & C. Wardlow, 95 John St., N. Y.

Steel, Screw, in Round.

Square, &c.—

Finished Steel Co., Youngstown, O.
Steel, Self Hardening—
Armstrong Bros. Tool Co., Chicago, Ill.
Bethlehem Steel Co., So. Bethlehem, Pa.
Heller Bros. Co., Newark, N. J.
Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.
Wm. Jessop & Sons, 91 John St., N. Y.
Samuel Osborn & Co., Boston, Mass.
Thos. Prosser & Son, 26 Platt St., N. Y.
Charles G. Stevens Co., 60 So. Canal St., Chicago, Ill.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-91 Lafayette St., New York.
Dilworth, Gilbert & Towne, Inc., 35-37 Wooster St., New York.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
Arthur C. Harvey Co., Boston, Mass.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.
Wm. S. Nicholls, 251 Broadway, N. Y.
Patriarche & Bell, 215 Pearl St., N. Y.
Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.

Edgar T. Ward & Sons, Boston, Mass.

Steel Sheets Punched to Order—

Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.
Hendrick Mfg. Co., Carbondale, Pa.
Chas. Mundt & Sons, 441 Pearl St., N. Y.
E. B. Stimpson Co., 31 Spruce St., N. Y.

Steel Shelving—

(See Shelves and Shelving, Library, Factory, &c.)

Steel, Shovel—

Colonial Steel Co., Pittsburgh, Pa.
La Belle Iron Works, Steubenville, O.
Steel, Show Card—
American Sheet and Tin Plate Co., Pittsburgh, Pa.

Steel, Spring—

Bethlehem Steel Co., So. Bethlehem, Pa.
Colonial Steel Co., Pittsburgh, Pa.
Farist Steel Co., Bridgeport, Ct.
Harrow Spring Co., Kalamazoo, Mich.
Kidd Bros. & Burgher Steel Wire Co., Alliquippa, Pa.
Patriarche & Bell, 215 Pearl St., N. Y.
Thomas Prosser & Son, 26 Platt St., N. Y.
Vulcan Crucible Steel Co. of Pittsburgh, Alliquippa, Pa.

Steel, Stamping Special—

La Belle Iron Works, Steubenville, O.
Superior Steel Co., Carnegie, Pa.
Youngstown Iron & Steel Roofing Co., Youngstown, O.

Steel, Swedish—

(See Iron and Steel, Swedish.)

Steel, Tan, Drawn—

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Steel, Tape Line—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Keuffel & Esser Co., 127 Fulton St., N. Y.

Steel, Tire—

Carnegie Steel Co., Pittsburgh, Pa.

Steel, Tool—

Bethlehem Steel Co., So. Bethlehem, Pa.
Braeburn Steel Co., Braeburn, Pa.
Colonial Steel Co., Pittsburgh, Pa.
Henry Disston & Sons, Philadelphia, Pa.
Farist Steel Co., Bridgeport, Ct.
Heller Bros. Co., Newark, N. J.
Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.
John Hillingworth Steel Co., Frankford, Philadelphia, Pa.

Wm. Jessop & Sons, 91 John St., N. Y.
Kidd Bros. & Burgher Steel Wire Co., Alliquippa, Pa.

Samuel Osborn & Co., Boston, Mass.
Thos. Prosser & Son, 26 Platt St., N. Y.
Vulcan Crucible Steel Co. of Pittsburgh, Alliquippa, Pa.

S. & C. Wardlow, 95 John St., N. Y.

MERCHANTS.

Hermann Boker & Co., 101-103 Duane St., New York.
Bourne-Fuller Co., Cleveland, O.
Denman & Davis, 85-91 Lafayette St., New York.
General-Supply-Iron-Steel & Rail Co., Cincinnati, O.
Arthur C. Harvey Co., Boston, Mass.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.
Wm. S. Nicholls, 251 Broadway, N. Y.
Ogden & Wallace, 571 Greenwich St., N. Y.

Patriarche & Bell, 215 Pearl St., N. Y.
F. R. Phillips & Sons Co., Pennsylvania
Bldg., Philadelphia, Pa.
Joseph T. Ryerson & Son, 18 Milwaukee
Ave., Chicago, Ill.
Scully Steel & Iron Co., Halsted and
Wayman Sts., Chicago, Ill.
Charles G. Stevens Co., 69 So. Canal St.,
Chicago, Ill.
Swedish Iron & Steel Corporation, 16 Ex-
change Place, New York.
Edgar T. Ward & Sons, Boston, Mass.
Wheelock, Lovejoy & Co., 23 Cliff St.,
New York.

A. P. Witterman & Co., 233-237 Cherry St.,
Philadelphia, Pa.

Steel, Twist Drill Drawn—
Pittsburgh Tool Steel Wire Co., Monaca,
Pa.

Steel, Vanadium—
Colonial Steel Co., Pittsburgh, Pa.

Steel, Watch Spring—
Cary Spring Works, 240-242 W. 39th St.,
New York.

Kidd Bros. & Burgher Steel Wire Co.,
Aliquippa, Pa.

Miller & Van Winkle, Brooklyn, N. Y.
Geo. Nash Co., 24 S. Clinton St., Chi-
cago, Ill.

B. & C. Wardlow, 95 John St., N. Y.

**Steel, Welded, Chrome Steel
and Iron—**
Chrome Steel Works, Chrome, N. J.

Steel Welding—
(See Welding, Iron and Steel, Electric
and Thermo Processes.)

Steel, Wire—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Steel Wire Brushes—
(See Brushes, Steel Wire.)

Steel Wire, Cast—
(See Wire, Cast Steel.)

Steel Works Machinery—
(See Rolling Mill Machinery.)

Steels, Buffer and Scraper—
Tuck Mfg. Co., Brockton, Mass.

Steels, Butcher, &c—
American Cutlery Co., Chicago, Ill.

John Chatillon & Sons, 85 Cliff St., N. Y.

Columbian Cutlery Co., Reading, Pa.

Goodell Co., Antrim, N. H.

Landers, Frary & Clark, New Britain, Ct.

Wilkinson Shear & Cutlery Co., Reading,
Pa.

Steelyards—
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Steering Gears—
Cambria Forge Co., Johnstown, Pa.

Steering Gears, Steam—
Pawling & Harnischfeger, Milwaukee.

Stems, Valve—
Bethlehem Steel Co., So. Bethlehem, Pa.

Thomas Prosser & Son, 26 Platt St., N. Y.

Stencils—
Geo. M. Ness, Jr., 61 Fulton St., N. Y.

Schwedert Stamp Co., Bridgeport, Ct.

Step Ladder Joints—
(See Joints, Step Ladder.)

Step Ladders—
(See Ladders, Step.)

Step Plates, Brass—
(See Plates, Brass, Step.)

Steps, Pole—
(See Telegraph and Telephone Pole Sup-
plies.)

Stereotype Metal—
Empire Metal Co., Syracuse, N. Y.

Theo. Hiertz Metal Co., St. Louis, Mo.

Merchant & Evans Co., Philadelphia, Pa.

Pittsburgh White Metal Co., Pittsburgh.

Stereotyping—
St. Louis Electrotypes Foundry, St. Louis.

Sterilizers—
Gem Mfg. Co., Boston, Mass.

Stuart & Peterson Co., Burlington, N. J.

Stew Pans, Sectional—
(See Pans, Sectional Stew.)

Sticks, Clothes—
Wrightsville Hardware Co., Wrightsville, Pa.

**Sticks, Emery and Corun-
dum—**
American Emery Wheel Works, Provi-
dence, R. I.

Sticks, Gambrel—
Piqua Handle & Mfg. Co., Piqua, O.

Sticks, Plant—
(See Stakes and Sticks.)

Sticks, Yard—
(See Yard Sticks.)

Stiffeners, Heel—
Louis Sacks, Newark, N. J.

Stills—
E. B. Badger & Sons Co., Boston, Mass.

Stuart & Peterson Co., Burlington, N. J.

Stills, Alcohol—
Buffalo Foundry & Machine Co., Buffalo,
N. Y.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Stills, Oil and Tar—
Meehan Boiler & Construction Co., Low-
ellville, O.

Petroleum Iron Works Co., Sharon, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Tudor Boiler Mfg. Co., Cincinnati, O.

Stirrers—
Joseph Dixon Crucible Co., Jersey City.

Stirrups, Machine—
Win. H. Haskell Mfg. Co., Pawtucket.

Stirrups, Riding—
North & Judd Mfg. Co., New Britain, Ct.

Stirrups, Timber—
(See Hangers and Stirrups.)

Stitching Machines, Wire—
(See Wire Stitching Machines.)

Stock, Milk Can—
(See Milk Can Stock.)

Stock Scales, Tanks—
(See Scales, Tanks.)

Stock Waterers—
S. Cheney & Son, Manlius, N. Y.

**Stocks and Dies, Black-
smiths—**
Butterfield & Co., Derby Line, Vt.

J. M. Carpenter Tap & Die Co., Paw-
tucket, R. I.

Stocks, Taps and Dies—
American Die & Tool Co., Reading, Pa.

American Iron & Steel Mfg. Co., Leba-
non, Pa.

Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.

C. H. Besly & Co., 15-21 Clinton St.,
Chicago, Ill.

Billings & Spencer Co., Hartford, Ct.

Butterfield & Co., Derby Line, Vt.

S. W. Card Mfg. Co., Manlius, N. Y.

J. M. Carpenter Tap & Die Co., Paw-
tucket, R. I.

- Champion Blower & Forge Co., Lancaster, Pa.
 Curtis & Curtis Co., Bridgeport, Ct.
 Samuel Hall's Sons, 223-233 W. 10th St., New York.
 Hart Mfg. Co., Cleveland, O.
 Humphreys Mfg. Co., Mansfield, O.
 Jarecki Mfg. Co., Erie, Pa.
 J. M. King & Co., Watford, N. Y.
 Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
 Morse Twist Drill & Machine Co., New Bedford, Mass.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Pratt & Whitney Co., Hartford, Ct.
 E. F. Reece Co., Greenfield, Mass.
 D. Saunders' Sons, Yonkers, N. Y.
 J. Smart Mfg. Co., Greenfield, Mass.
 Smith & Hemenway Co., 108-110 Duane St., New York.
 Standard Engineering Co., Ellwood City, Pa.
 Standard Tool Co., Cleveland, O.
 Walworth Mfg. Co., Boston, Mass.
 F. E. Wells & Sons Co., Greenfield, Mass.
 Wells Bros. Co., Greenfield, Mass.
 Wiley & Russell Mfg. Co., Greenfield, Mass.
- Stokers, Mechanical—**
 Babcock & Wilcox Co., 85 Liberty St., New York.
 Alfred Box & Co., Front and Poplar Sts., Philadelphia, Pa.
 Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
 McClave-Brooks Co., Scranton, Pa.
- Stone Cutters' Chisels—**
 (See Chisels, Brick, Stone Cutters' &c.)
- Stone Handling Machinery—**
 Browning Engineering Co., Cleveland, O.
- Stone Planers, Saws—**
 (See Planers, Saws.)
- Stone Turning and Planing Machines (combined)—**
 Detrick & Harvey Machine Co., Baltimore, Md.
- Stone Working Machinery—**
 Birmingham Iron Foundry, Derby, Ct.
 Detrick & Harvey Machine Co., Baltimore, Md.
 J. Gilmour, Bennett Bldg., New York.
 Ingersoll-Rand Co., 11 Broadway, N. Y.
 Stow Flexible Shaft Co., 2th and Callowhill Sts., Philadelphia, Pa.
- Stoners, Cherry—**
 Enterprise Mfg. Co., of Pa., Philadelphia, Pa.
 Goodell Co., Antrim, N. H.
 John H. Graham & Co., 113 Chambers St., New York.
 Rollman Mfg. Co., Mt. Joy, Pa.
 Wrightsville Hardware Co., Wrightsville, Pa.
- Stoners, Peach—**
 Rollman Mfg. Co., Mt. Joy, Pa.
- Stoners, Ax—**
 Cleveland Stone Co., Cleveland, O.
 Pike Mfg. Co., Pike, N. H.
- Stones, Corundum—**
 (See Stones, Emery and Corundum.)
- Stones, Curriers' and Tan-ners—**
 Pike Mfg. Co., Pike, N. H.
- Stones, Emery and Corundum—**
 American Emery Wheel Works, Providence, R. I.
 Monarch Emery & Corundum Wheel Co., Camden, N. J.
 Pike Mfg. Co., Pike, N. H.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
 Superior Corundum Wheel Co., Waltham, Mass.
 Vittrified Wheel Co., Westfield, Mass.
- Stones, Gold Test—**
 Pike Mfg. Co., Pike, N. H.
- Stones, Hacker—**
 Pike Mfg. Co., Pike, N. H.
- Stones, India—**
 Norton Co., Worcester, Mass.
 Pike Mfg. Co., Pike, N. H.
- Stones, Jack—**
 Arcade Mfg. Co., Freeport, Ill.
 Columbia Grey Iron Co., Columbia, Pa.
- Stones, Oil and Water—**
 American Emery Wheel Works, Providence, R. I.
 Carborundum Co., Niagara Falls, N. Y.
 Norton Co., Worcester, Mass.
 Pike Mfg. Co., Pike, N. H.
 Star Corundum Wheel Co., Detroit, Mich.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
 Superior Corundum Wheel Co., Waltham, Mass.
 Vittrified Wheel Co., Westfield, Mass.
- Stones, Razor—**
 Norton Co., Worcester, Mass.
 Pike Mfg. Co., Pike, N. H.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
- Stones, Rubbing—**
 American Emery Wheel Works, Providence, R. I.
 Norton Co., Worcester, Mass.
 Pike Mfg. Co., Pike, N. H.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
 Superior Corundum Wheel Co., Waltham, Mass.
- Stones, Seythe—**
 Carborundum Co., Niagara Falls, N. Y.
 Cleveland Stone Co., Cleveland, O.
 Cutaway Harrow Co., Higganum, Ct.
 Norton Co., Worcester, Mass.
 Pike Mfg. Co., Pike, N. H.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
 Superior Corundum Wheel Co., Waltham, Mass.
- Stones, Whet—**
 Pike Mfg. Co., Pike, N. H.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
- Stools, Camp—**
 Stanley Works, New Britain, Ct.
- Stools, Factory, Store, &c.—**
 Chicago Wire Chair Co., 129 N. La Salle Ave., Chicago, Ill.
 Manufacturing Equipment & Engineering Co., Boston, Mass.
- Stools, Store—**
 (See Store Stools, Iron.)
- Stonners, Bottle—**
 Baird Machine Co., Oakville, Ct.
 H. O. Canfield Co., Bridgeport, Ct.
 New York Belting & Packing Co., 91-93 Chambers St., New York.
 Tarrin Mfg. Co., New Britain, Ct.
- Stoppers, Ladle—**
 McCullough-Dalzell Crucible Co., Pittsburgh, Pa.
 R. B. Seidel, Inc., 1334 Callowhill St., Philadelphia, Pa.

Stops, Bend—
Russell & Erwin Mfg Co., 94-98 Lafayette St., New York.

Stops, Bench—
Millers Falls Co., 23 Warren St., N. Y.
Charles Morrill, 27 Broadway, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Stops, Door—
Jos. Bardsley, 147-151 Baxter St., N. Y.
Caldwell Mfg. Co., Rochester, N. Y.
Chapin-Stephens Co., Pine Meadow, Ct.
Fanner Mfg. Co., Cleveland, O.
Piqua Handle & Mfg. Co., Piqua, O.
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg Co., 94-98 Lafayette St., New York.
Yale & Towne Mfg. Co., 9-15 Murray St., New York.

Stops, Flue—
Andrew Wire & Iron Works, Rockford, Ill.

Stops, Terrett—
American Rivet Co., New Haven, Ct.

Storage Bins, Coal—
Meehan Boiler & Construction Co., Lowellville, O.

Store for Scrap Iron—
Riter-Conley Mfg. Co., Pittsburgh, Pa.
Alfred T. Green, Chester, Pa.

Store Door Shutter Screws—
(See Screws, Shutter Store Door.)

Store Fixtures, Wire—
W. S. Tyler Co., Cleveland, O.

Store Ladders, Trucks—
(See Ladders, Trucks.)

Store Stools, Iron—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Storm Sash Hangers, &c.—
(See Hangers, &c.)

Storm Window Fasteners—
(See Fasteners, Storm Window.)

Stove Blanks—
Matthiessen & Hegeler Zinc Co., La Salle, Ill.

Stove Bolts—
(See Bolts.)

Stove Door Handles—
(See Trimmings, Stove.)

Stove Knobs—
(See Trimmings, Stove.)

Stove Pipe—
(See Pipe, Stove.)

Stove Pipe Elbows—
(See Elbows, Stove Pipe.)

Stove Pipe Machines—
(See Pipe Machines.)

Stove Pipe Registers.

Shelves, &c.—
(See Registers, Shelves, &c.)

Stoves, Alcohol—
Gem Mfg. Co., Boston, Mass.

Stoves and Ranges, Gas.

Gasoline and Oil—
Columbia Grey Iron Co., Columbia, Pa.

Gasoline and Oil—
Gem Mfg. Co., Boston, Mass.

Gasoline and Oil—
Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Gasoline and Oil—
Taylor & Boggis Foundry Co., Cleveland, O.

Stoves, Fire Brick—
Julian Kennedy, Pittsburgh, Pa.

Stoves, Fire Brick—
D. Lamond & Son, Pittsburgh, Pa.

Stoves, Fire Brick—
G. W. McClure, Son & Co., Pittsburgh.

Stoves, Gas, Hot Plates—
(See Plates, Hot, Gas.)

Stoves, Gasoline, Gas—
Royal Gas Light Co., 215 E. Kinzie St., Chicago, Ill.

Stoves, Hot Blast for Furnaces—
G. W. McClure, Sons & Co., Pittsburgh, Pa.

Stoves, Hot Blast for Furnaces—
Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Stoves, Hot Water—
Stuart & Peterson Co., Burlington, N. J.

Stoves, Lamp Chimney—
(See Heaters, Lamp Chimney.)

Stoves, Laundry—
Stuart & Peterson Co., Burlington, N. J.

Stoves, Laundry, Gas—
Griswold Mfg. Co., Erie, Pa.

Stoves, Laundry, Gas—
Schneider & Trenkamp Div., Am. Stove Co., Cleveland, O.

Stoves, Oil Lamp—
Taylor & Boggis Fdy. Co., Cleveland, O.

Stoves, Tansie—
S. M. Howes Co., Boston, Mass.

Stoves, Wood and Coal—
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Stoves, Wood and Coal—
S. Cheney & Son, Manlius, N. Y.

Stoves, Wood and Coal—
Hess-Snyder Co., Massillon, O.

Stoves, Wood and Coal—
Schneider & Trenkamp Co., Div. American Stove Co., Cleveland, O.

Stoves, Wood and Coal—
Stuart & Peterson Co., Burlington, N. J.

Stoves, Wood and Coal—
(See also Ranges.)

Straight Edges—
(See Edges, Straight.)

Straightening and Cutting Machines, Automatic Wire—

Straightening and Cutting Machines, Automatic Wire—
Franklin Mfg. Co., New Haven, Ct.

Straightening and Cutting Machines, Automatic Wire—
E. J. Manville Mach. Co., Waterbury, Ct.

Straightening and Cutting Machines, Sheet Metal—
F. B. Shuster Co., New Haven, Ct.

Straightening and Cutting Machines, Strip Metal—
American Tube & Stamping Co., Bridgeport, Ct.

Straightening and Cutting Machines, Strip Metal—
Niagara Machine & Tool Co., Buffalo, N. Y.

Straightening and Cutting Machines, Strip Metal—
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Straightening and Cutting Machines, Wire—
New York

Straightening and Cutting Machines, Wire—
Baird Machine Co., Oakville, Ct.

Straightening and Cutting Machines, Wire—
Chandler & Farquhar Co., Boston, Mass.

Straightening and Cutting Machines, Wire—
E. J. Manville Mach. Co., Waterbury, Ct.

Straightening and Cutting Machines, Wire—
A. H. Nilson Machine Co., Bridgeport, Ct.

Straightening and Cutting Machines, Wire—
F. B. Shuster Co., New Haven, Ct.

Straightening and Cutting Machines, Wire—
J. D. Smith Foundry Supply Co., Cleveland, O.

Straightening and Cutting Machines, Wire—
Wright Wire Co., Worcester, Mass.

Merchants.

Merchants.
S. Obermayer Co., Cincinnati, O.

Merchants.
A. D. White Machinery Co., 39-41 S. Canal St., Chicago, Ill.

Straightening Machinery, Plate—
Bertsch & Co., Cambridge City, Ind.

Straightening Machinery, Plate—
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.

Straightening Machinery, Plate—
Hilles & Jones Co., Wilmington, Del.

Straightening Machinery, Plate—
Lewis Foundry & Machine Co., Groveton, Pa.

Straightening Machinery, Plate—
Mackintosh, Hemphill & Co., Pittsburgh, Pa.

- E. J. Manville Machine Co., Waterbury, Ct.
 Morran Engineering Co., Alliance, O.
 R. S. Newbold & Son Co., Norristown, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Peck, Storer & Wilcox Co., 27 Murray St., New York.
 Walzmaschinenfabrik August Schmidt, Dusseldorf, Germany.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Williams, White & Co., Moline, Ill.
 Joseph T. Ryerson & Son, 13-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
- Straightening Machines, Angle, Beam and Channel—**
 Bertsch & Co., Cambridge City, Ind.
 Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
 Hilles & Jones Co., Wilmington, Del.
 Lewis Foundry & Machine Co., Groveton, Pa.
 Long & Allstatter Co., Hamilton, O.
 Morgan Engineering Co., Alliance, O.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Williams, White & Co., Moline, Ill.
- Straightening Machines, Bar—**
 Hartford Machine Screw Co., Hartford, Ct.
- Straightening Machines, Pipe—**
 Taylor-Wilson Mfg. Co., McKees Rocks, Pa.
 United Engineering & Foundry Co., Pittsburgh, Pa.
- Straightening Machines, Rail—**
 George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.
- Straightening Machines, Shaft—**
 (See Shaft Straightening Machinery.)
- Straightening Presses, Axle—**
 Badger State Machine Co., Janesville, Wis.
 R. B. Noves & Co., Greenfield, Mass.
 Watson-Stillman Co., 26 Cortlandt St., New York.
 Wells Bros. Co., Greenfield, Mass.
- Straightening Rolls—**
 (See Rolls, Bending and Straightening.)
- Straightening Tables—**
 Bancroft & Co., Philadelphia, Pa.
- Strainers—**
 (See Kitchen Articles, Wire.)
- Strainers, Conductor Pipe—**
 Andrews Wire & Iron Works, Rockford, Ill.
 Berger Mfg. Co., Canton, O.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 Dufur & Co., Baltimore Md.
 C. T. Haverford Brass & Copper Co., 46-508 Pearl St., New York.
- Ludlow-Saylor Wire Co., St. Louis, Mo.
 Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.
 Wright Wire Co., Worcester, Mass.
- Strainers, Juleps, Eggs Shaker, &c.—**
 Mosteller Mfg. Co., 79 Dearborn St., Chicago, Ill.
- Strainers, Milk, Sanitary, Seamless—**
 Sturges & Burn Mfg. Co., Chicago, Ill.
- Strainers, Pipe—**
 American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.
 W. & B. Douglas, Middletown, Ct.
- Strainers, Sink—**
 Andrews Wire & Iron Works, Rockford, Ill.
 Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.
- Strainers, Tea and Coffee—**
 (See Household Articles, Wire.)
- Strainers, Tea, Silver and Silver Plated—**
 International Silver Co., Meriden, Ct.
- Strainers, Tube Well—**
 A. D. Cook, Lawrenceburg, Ind.
- Strainers, Water—**
 Buffalo Wire Works Co., Buffalo, N. Y.
- Strap and T Hinges—**
 (See Hinges, Strap and T.)
- Strapping and Buffing Machines—**
 (See Buffing and Polishing Machines.)
- Strapping, Harvester—**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Strapping, Loom—**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Straps, Anchor—**
 (See Telegraph and Telephone Pole Supplies.)
- Straps, Automobile Top—**
 Chas. L. Stevens & Co., Detroit, Mich.
- Straps, Baggage Check—**
 American Railway Supply Co., 24 Park Place, New York.
- Straps, Blanket—**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Straps, Box—**
 Acme Flexible Clasp Co., 2334-2340 Archer Ave., Chicago, Ill.
 Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
- Straps, Hung—**
 Acme Steel Goods Co., 2334-2340 Archer Ave., Chicago, Ill.
- Straps, Connecting Rod—**
 Titusville Forge Co., Titusville, Pa.
- Straps, Curtain—**
 McKinnon Dash Co., Buffalo, N. Y.
- Straps, Gas Pipe—**
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- Straps, Hammer—**
 Loew Mfg. Co., Cleveland, O.
- Straps, Harness—**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Straps, Skate—**
 Graton & Knight Mfg. Co., Worcester, Mass.

Straps, Sleigh Bell—
Bevin Bros. Mfg. Co., Easthampton, Ct.
Straps, Trunk—
Graton & Knight Mfg. Co., Worcester, Mass.

Straps, Wall, Steel—
W. J. Clark Co., Salem, O.
Straw Knives—
(See Knives, Hay and Straw.)

Street Forks—
(See Forks, Hay, Manure, Spading, &c.)

Street Lamps, Scrapers—
(See Lamps, Scrapers.)

Street Washers—
(See Hydrants and Street Washers.)

Stretchers, Box Strap—
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.

Stretchers, Carpet—
Krauter & Co., Inc., Newark, N. J.
Peck, Stow & Wilcox Co., 27 Murray St., N. Y.

Stretchers, Electric Wire—
Smith & Hemenway Co., 108-110 Duane St., New York.

Stretchers, Fence and Wire—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Arcade Mfg. Co., Freeport, Ill.
De Kalb Fence Co., De Kalb, Ill.
Ney Mfg. Co., Canton, O.
C. F. Smith Co., De Kalb, Ill.
Smith & Hemenway Co., 108-110 Duane St., New York.

Spring Steel Fence & Wire Co., Anderson, Ind.
Wrightsville Hardware Co., Wrightsville, Pa.

Stretchers, Glove—
Bancroft & Co., Philadelphia, Pa.

Stretchers, Gate—
C. F. Smith Co., De Kalb, Ill.

Stretchers, Oil Cloth—
Krauter & Co., Inc., Newark, N. J.

Stretchers, Saw—
(See Rods, Saw.)

Stretchers, Trousers—
Andrews Wire & Iron Works, Rockford, Ill.

Covert Mfg. Co., West Troy, N. Y.
Strikers, Lock and Latch—
(See Locks, Latches, &c.)

Stringers, Fish—
Andrew B. Hendryx Co., New Haven, Ct.

Strip Steel, Cold Rolled—
(See Steel, Cold Rolled Strip.)

Strippers, Electric Ingot—
Modern Steel Structural Co., Waukesha, Wis.

Morgan Engineering Co., Alliance, O.

Strippers, Electro-Hydraulic Ingot—
Morgan Engineering Co., Alliance, O.

Strippers, Hydraulic Ingot—
Morgan Engineering Co., Alliance, O.

Stroppers, Automatic Razor—
L. B. Gaylor, Allston, Mass.

Stropping Devices, Safety Razor—
Worcester Pressed Steel Co., Worcester, Mass.

Strops, Razor—
L. B. Gaylor, Allston, Mass.

Pike Mfg. Co., Pike, N. H.

Smith & Hemenway Co., 108-110 Duane St., New York.

J. Wiss & Sons Co., Newark, N. J.

Structural Iron and Steel Work—

American Bridge Co. of New York, 42 Broadway, New York.

Baltimore Bridge Co., Baltimore, Md.

Belmont Iron Works, Inc., Philadelphia.

Berlin Construction Co., Berlin, Ct.

Bethlehem Steel Co., So. Bethlehem, Pa.

Boston Bridge Works, Boston, Mass.

Carnegie Steel Co., Pittsburgh, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

Eastern Bridge & Structural Co., Worcester, Mass.

Interstate Engineering Co., Bedford, O.

Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.

W. N. Kratzer & Co., Pittsburgh, Pa.

Meehan Boiler & Construction Co., Lowellville, O.

Modern Steel Structural Co., Waukesha, Wis.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Northern Engineering Works, Detroit.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.

Stewart Iron Works Co., Cincinnati, O.

Virginia Bridge & Iron Co., Roanoke, Va.

Structural Material—

Chester B. Albee Iron Works Co., Allegheny, Pa.

American Bridge Co. of New York, 42 Broadway, New York.

Baltimore Bridge Co., Baltimore, Md.

Berlin Construction Co., Berlin, Ct.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Bethlehem Steel Co., So. Bethlehem, Pa.

Boston Bridge Works, Boston, Mass.

Carnegie Steel Co., Pittsburgh, Pa.

Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.

City Forge & Iron Works, Dayton, O.

Eastern Bridge & Structural Co., Worcester, Mass.

Forest City Steel & Iron Co., Cleveland.

Henry A. Hittner's Sons Co., Huntington & Aramingo Aves., Philadelphia, Pa.

Interstate Engineering Co., Bedford, O.

Jones & Laughlin Steel Co., Pittsburgh.

W. N. Kratzer & Co., Pittsburgh, Pa.

Lackawanna Steel Co., 2 Rector St., N. Y.

McClintic - Marshall Construction Co., Pittsburgh, Pa.

Northern Engineering Works, Detroit.

Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Republic Iron & Steel Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.

Stewart Iron Works Co., Cincinnati, O.

Virginia Bridge & Iron Co., Roanoke, Va.

Zimmerman Steel Co., Lone Tree, Ia.

- E. J. Manville Machine Co., Waterbury, Ct.
 Morran Engineering Co., Alliance, O.
 R. S. Newbold & Son Co., Norristown, Pa.
 Niles-Bement-Pond Co., 111 Broadway, New York.
 Peck, Storz & Wilcox Co., 27 Murray St., New York.
 Walzmaschinenfabrik August Schmidt, Dusseldorf, Germany.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
 Williams, White & Co., Moline, Ill.
- MERCHANTS.**
 Joseph T. Ryerson & Son, 12-22 Milwaukee Ave., Chicago, Ill.
 Scully Steel & Iron Co., 69 N. Halsted St., Chicago, Ill.
- Straightening Machines, Angle, Beam and Channel—**
 Bertsch & Co., Cambridge City, Ind.
 Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
 Hilles & Jones Co., Wilmington, Del.
 Lewis Foundry & Machine Co., Groveton, Pa.
 Long & Allstatter Co., Hamilton, O.
 Morgan Engineering Co., Alliance, O.
 Pittsburgh Mfg. Co., Pittsburgh, Pa.
 United Engineering & Foundry Co., Pittsburgh, Pa.
 Williams, White & Co., Moline, Ill.
- Straightening Machines, Bar—**
 Hartford Machine Screw Co., Hartford, Ct.
- Straightening Machines, Pipe—**
 Taylor-Wilson Mfg. Co., McKees Rocks, Pa.
 United Engineering & Foundry Co., Pittsburgh, Pa.
- Straightening Machines, Rail—**
 George A. Hogg I. & S. Foundry Co., Pittsburgh, Pa.
- Straightening Machines, Shaft—**
 (See Shaft Straightening Machinery.)
- Straightening Presses.**
 Axle—
 Badger State Machine Co., Janesville, Wis.
 R. H. Noves & Co., Greenfield, Mass.
 Watson-Stillman Co., 26 Cortlandt St., New York.
 Wells Bros. Co., Greenfield, Mass.
- Straightening Rolls—**
 (See Rolls, Bending and Straightening.)
- Straightening Tables—**
 Bancroft & Co., Philadelphia, Pa.
- Strainers—**
 (See Kitchen Articles, Wire.)
- Strainers, Conductor Pipe—**
 Andrews Wire & Iron Works, Rockford, Ill.
 Heger Mfg. Co., Canton, O.
 Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.
 Dufur & Co., Baltimore, Md.
 U. T. Hungerford Brass & Copper Co., 495-505 Pearl St., New York.
- Ludlow-Saylor Wire Co., St. Louis, Mo.
 Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.
 Wright Wire Co., Worcester, Mass.
- Strainers, Juleps, Egg Shaker, &c.—**
 Mosteller Mfg. Co., 79 Dearborn St., Chicago, Ill.
- Strainers, Milk, Sanitary, Seamless—**
 Sturges & Burn Mfg. Co., Chicago, Ill.
- Strainers, Pipe—**
 American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.
 W. & B. Douglas, Middletown, Ct.
- Strainers, Sink—**
 Andrews Wire & Iron Works, Rockford, Ill.
 Parker Wire Goods Co., Worcester, Mass.
 Wire Goods Co., Worcester, Mass.
- Strainers, Tea and Coffee—**
 (See Household Articles, Wire.)
- Strainers, Tea, Silver and Silver Plated—**
 International Silver Co., Meriden, Ct.
- Strainers, Tube Well—**
 A. D. Cook, Lawrenceburg, Ind.
- Strainers, Water—**
 Buffalo Wire Works Co., Buffalo, N. Y.
- Strap and T Hinges—**
 (See Hinges, Strap and T.)
- Strapping and Buffing Machines—**
 (See Buffing and Polishing Machines.)
- Strapping, Harvester—**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Strapping, Loom—**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Straps, Anchor—**
 (See Telegraph and Telephone Pole Supplies.)
- Straps, Automobile Top—**
 Chas. L. Stevens & Co., Detroit, Mich.
- Straps, Baggage Check—**
 American Railway Supply Co., 24 Park Place, New York.
- Straps, Blanket—**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Straps, Box—**
 Acme Flexible Clasp Co., 2834-2840 Archer Ave., Chicago, Ill.
 Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
- Straps, Bung—**
 Acme Steel Goods Co., 2834-2840 Archer Ave., Chicago, Ill.
- Straps, Connecting Rod—**
 Titusville Forge Co., Titusville, Pa.
- Straps, Curtain—**
 McKinnon Dash Co., Buffalo, N. Y.
- Straps, Gas Pipe—**
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- Straps, Loew Mfg. Co., Cleveland, O.**
- Straps, Hammer—**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Straps, Harness—**
 Graton & Knight Mfg. Co., Worcester, Mass.
- Straps, Skate—**
 Graton & Knight Mfg. Co., Worcester, Mass.

- Straps, Sleigh Bell—**
Bevin Bros. Mfg. Co., Easthampton, Ct.
- Straps, Trunk—**
Graton & Knight Mfg. Co., Worcester, Mass.
- Straps, Wall, Steel—**
W. J. Clark Co., Salem, O.
- Straw Knives—**
(See Knives, Hay and Straw.)
- Street Forks—**
(See Forks, Bay, Manure, Spading, &c.)
- Street Lamps, Scrapers—**
(See Lamps, Scrapers.)
- Street Washers—**
(See Hydrants and Street Washers.)
- Stretchers, Box Strap—**
Cary Mfg. Co., 19-21 Roosevelt St., N. Y.
- Stretchers, Carpet—**
Krauter & Co., Inc., Newark, N. J.
- Stretchers, Electric Wire—**
Smith & Hemenway Co., 108-110 Duane St., New York.
- Stretchers, Fence and Wire—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
- Stretchers, Gate—**
C. F. Smith Co., De Kalb, Ill.
- Stretchers, Oil Cloth—**
Krauter & Co., Inc., Newark, N. J.
- Stretchers, Saw—**
(See Rods, Saw.)
- Stretchers, Trousers—**
Andrews Wire & Iron Works, Rockford, Ill.
- Strikers, Lock and Latch—**
(See Locks, Latches, &c.)
- Stringers, Fish—**
Andrew B. Hendryx Co., New Haven, Ct.
- Strip Steel, Cold Rolled—**
(See Steel, Cold Rolled Strip.)
- Strippers, Electric Ingot—**
Modern Steel Structural Co., Waukesha, Wis.
- Strippers, Electro-Hydraulic Ingot—**
Morgan Engineering Co., Alliance, O.
- Strippers, Hydraulic Ingot—**
Morgan Engineering Co., Alliance, O.
- Strippers, Automatic Razor—**
L. B. Gaylor, Allston, Mass.
- Stripping Devices, Safety Razor—**
Worcester Pressed Steel Co., Worcester, Mass.
- Strops, Razor—**
L. B. Gaylor, Allston, Mass.
- Strops, Pike Mfg. Co., Pike, N. H.**
- Smith & Hemenway Co., 108-110 Duane St., New York.**
- J. Wiss & Sons Co., Newark, N. J.**
- Structural Iron and Steel Work—**
American Bridge Co. of New York, 42 Broadway, New York.
- Baltimore Bridge Co., Baltimore, Md.**
- Belmont Iron Works, Inc., Philadelphia.**
- Berlin Construction Co., Berlin, Ct.**
- Bethlehem Steel Co., So. Bethlehem, Pa.**
- Boston Bridge Works, Boston, Mass.**
- Carnegie Steel Co., Pittsburgh, Pa.**
- Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.**
- Eastern Bridge & Structural Co., Worcester, Mass.**
- Interstate Engineering Co., Bedford, O.**
- Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.**
- W. N. Kratzer & Co., Pittsburgh, Pa.**
- Meehan Boiler & Construction Co., Lowellville, O.**
- Modern Steel Structural Co., Waukesha, Wis.**
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.**
- Northern Engineering Works, Detroit.**
- Pittsburgh Steel Construction Co., Pittsburgh, Pa.**
- Wm. B. Scaife & Sons Co., Pittsburgh, Pa.**
- Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.**
- Stewart Iron Works Co., Cincinnati, O.**
- Virginia Bridge & Iron Co., Roanoke, Va.**
- Structural Material—**
Chester B. Albree Iron Works Co., Allegheny, Pa.
- American Bridge Co. of New York, 42 Broadway, New York.**
- Baltimore Bridge Co., Baltimore, Md.**
- Berlin Construction Co., Berlin, Ct.**
- Bethlehem Foundry & Machine Co., South Bethlehem, Pa.**
- Bethlehem Steel Co., So. Bethlehem, Pa.**
- Boston Bridge Works, Boston, Mass.**
- Carnegie Steel Co., Pittsburgh, Pa.**
- Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.**
- City Forge & Iron Works, Dayton, O.**
- Eastern Bridge & Structural Co., Worcester, Mass.**
- Forest City Steel & Iron Co., Cleveland.**
- Henry A. Hitner's Sons Co., Huntington & Aramingo Aves., Philadelphia, Pa.**
- Interstate Engineering Co., Bedford, O.**
- Jones & Laughlin Steel Co., Pittsburgh.**
- W. N. Kratzer & Co., Pittsburgh, Pa.**
- Lackawanna Steel Co., 2 Rector St., N. Y.**
- McClintic & Marshall Construction Co., Pittsburgh, Pa.**
- Northern Engineering Works, Detroit.**
- Phoenix Iron Co., 410 Walnut St., Philadelphia, Pa.**
- Pittsburgh Steel Construction Co., Pittsburgh, Pa.**
- Republic Iron & Steel Co., Pittsburgh, Pa.**
- Wm. B. Scaife & Sons Co., Pittsburgh, Pa.**
- Lewis F. Shoemaker & Co., Harrison Bldg., Philadelphia, Pa.**
- Stewart Iron Works Co., Cincinnati, O.**
- Virginia Bridge & Iron Co., Roanoke, Va.**
- Zimmerman Steel Co., Lone Tree, Ia.**

MERCHANTS.

- Bourne-Fuller Co., Cleveland, O.
 Dilworth, Gilbert & Towne, Inc., 35-37
 Wooster St., New York
 General-Supply-Iron-Steel & Rail Co.,
 Cincinnati, O.
 Hirsch Rolling Mill Co., St. Louis, Mo.
 C. B. Houston & Co., Girard Trust
 Bldg., Philadelphia, Pa.
 Edgar M. Moore & Co., Pittsburgh, Pa.
 Edmund W. Mudge & Co., Pittsburgh, Pa.
 North Works, Illinois Steel Co., Chicago, Ill.
 Pierson & Co., 29 Broadway, New York
 Joseph T. Ryerson & Son, 18-22 Milwau-
 kee Ave., Chicago, Ill.
 Scully Steel & Iron Co., 69 N. Halsted
 St., Chicago, Ill.
Stubs and Plates, Store
Shutter—
 Reading Hardware Co., Reading, Pa.
 Russell & Erwin Mfg. Co., 91-98 Lafayette
Stubs, Awning, Expansion—
 Star Expansion Bolt Co., 147-149 Cedar
 St., New York
Stud Bolts, Chains—
 (See Bolts, Chains.)
Stud Machines—
 Risdon Tool Works, Inc., Waterbury, Ct.
Studs, Bedstead—
 Kirk-Latty Mfg. Co., Cleveland, O.
Studs, Brass and Iron—
 American Iron & Steel Mfg. Co., Leba-
 non, Pa.
 Anthony Screw Co., Worcester, Mass.
 Blake & Johnson Co., Waterbury, Ct.
 Boston Bolt Co., Boston, Mass.
 Chicago Screw Co., 2 No. Canal St.,
 Chicago, Ill.
 Clark Bros. Bolt Co., Milldale, Ct.
 Detroit Screw Works, Detroit, Mich.
 Hartford Machine Screw Co., Hartford, Ct.
 Wm. H. Haskell Mfg. Co., Pawtucket, R. I.
 New Haven Machine Screw Co., New
 Haven, Ct.
 Pittsburgh Screw & Bolt Co., Pittsburgh.
 St. Louis Screw Co., St. Louis, Mo.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Studs, Dog Collar and Bag—
 R. C. Jenkinson & Co., Newark, N. J.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Studs, Harness—
 E. B. Stimpson Co., 31 Spruce St., N. Y.
 Wire Goods Co., Worcester, Mass.
Stuffers, Sausage—
 Enterprise Mfg. Co. of Pa., Philadelphia,
 Pa.
 Bernard Gloekler Co., Pittsburgh, Pa.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York
 Silver Mfg. Co., Salem, O.
Stump Joists—
 (See Joists, Stump.)
Sub Presses—
 (See Presses, Sub.)
Suction Faucets—
 (See Faucets, Suction.)
Sugar House Machinery—
 American Tool & Machine Co., Boston,
 Mass.
 Baltimore Bridge Co., Baltimore, Md.
 Bethlehem Foundry & Machine Co.,
 South Bethlehem, Pa.
 Buffalo Forge Co., Buffalo, N. Y.
 Erie Forge Co., Erie, Pa.
 John H. McGowan Co., Cincinnati, O.
 Mesta Machine Co., Pittsburgh, Pa.
 Niles-Bement-Pond Co., 111 Broadway,
 New York
 Thomas Prosser & Son, 26 Platt St., N. Y.
 R. D. Wood & Co., 400 Chestnut St.,
 Philadelphia, Pa.
Sulphate of Iron—
 American Steel & Wire Co., The Rookery,
 Chicago, Ill.
Sulphuric Acid—
 (See Acid, Sulphuric.)
Summer Houses—
 (See Houses, Wire, Summer.)
Sun Dials—
 Wm. Gardam & Son, 221 Fulton St.,
 New York
Superheaters, Steam—
 Babcock & Wilcox Co., 85 Liberty St.,
 New York
 Parker Boiler Co., Pennsylvania Bldg.,
 Philadelphia, Pa.
 Power Specialty Co., 111 Broadway, N. Y.
Supplies, Architects' and
Artists'—
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Supplies, Foundry, Mill,
&c.—
 (See Foundry and Mill Supplies.)
Supplies, Grinders' and Pol-
ishers'—
 (See Grinders' and Polishers' Supplies.)
Supplies, Tube, Well—
 (See Well, Tube, Supplies.)
Supporters, Hose, Skirt,
Drawers, &c.—
 American Ring Co., Waterbury, Ct.
Supports and Bars, Ham-
mock—
 I. E. Palmer, Middletown, Ct.
Supports and Bolts, Sash—
 Smith & Egge Mfg. Co., Bridgeport, Ct.
Supports, Counter—
 Bethlehem Foundry & Machine Co., So.
 Bethlehem, Pa.
Supports, Porch—
 Columbia Grey Iron Co., Columbia, Pa.
 Reading Hardware Co., Reading, Pa.
 Susquehanna Casting Co., Wrightsville, Pa.
Supports, Shelf—
 (See Pins, Shelf.)
Surface Grinders—
 (See Grinders, Surface.)
Surface Plates, Standard—
 Brown & Sharpe Mfg. Co., Providence,
 R. I.
 Gould & Eberhardt, Newark, N. J.
Surfacers, Wood—
 Lane Mfg. Co., Montpelier, Vt.
Swage Blocks—
 (See Blocks, Swage.)
Swages, Saw Tooth—
 E. C. Atkins & Co., Indianapolis, Ind.
 Henry Diaston & Sons, Philadelphia, Pa.
 National Saw Co., Newark, N. J.
 Simonds Mfg. Co., Fitchburg, Mass.
Swaging Machines—
 American Tube & Stamping Co., Bridge-
 port, Ct.
 E. V. Bliss Co., Brooklyn, N. Y.
 Excelsior Needle Co., Torrington, Ct.
 Ferracute Machine Co., Bridgeport, N. J.
 Ches. Leffler & Co., Brooklyn, N. Y.
 Niagara Machine & Tool Works, Buf-
 falo, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Swedish Iron and Steel—
(See Iron and Steel, Swedish.)

Sweepers, Lawn—
Philadelphia Lawn Mower Co., 3100-3109 Chestnut St., Philadelphia, Pa.
Supplee Hardware Co., Market and 5th Sts., Philadelphia, Pa.

Sweeping Brushes—
(See Brushes, Whitewash, Horse, &c.)

Sweeping Machines, Street—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Swings, Lawn—
Keystone Farm Machine Co., York, Pa.
F. E. Myers & Bro., Ashland, O.

Switchboards—
C. & C. Electric Co., Garwood, N. J.
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Zucker & Levett & Loeb Co., 526-530 West 25th St., New York.

Switches and Cut-outs, Electric—

General Electric Co., Schenectady, N. Y.

Switches and Frogs, Railroad—

Atlas Car & Mfg. Co., Cleveland, O.
Barbour-Stockwell Co., Cambridgeport, Mass.

Thos. Carlin's Sons, Allegheny, Pa.
Chase Foundry & Mfg. Co., Columbus, O.
Indianapolis Switch & Frog Co., Springfield, O.

Arthur Koppel, Pittsburgh, Pa.
Henry Lewis & Co., 26 S. 15th St., Philadelphia, Pa.

Thomas Prosser & Son, 26 Platt St., N.Y.
Ernst Wiener Co., Broad and Beaver Sts., New York.

Walter A. Zelnicker Supply Co., St. Louis, Mo.

MERCHANTS.

General-Supply-Iron-Steel & Rail Co., Cincinnati, O.

Hyde Bros. & Co., Pittsburgh, Pa.
Richardson & Co., Inc., Pittsburgh, Pa.
Robinson & Orr, Pittsburgh, Pa.

Switches, Derailing—

Indianapolis Switch & Frog Co., Springfield, O.

Switches, Electric Knife—

Electric Controller & Supply Co., Cleveland, O.

General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

Switches, Magnetic—

Electric Controller & Supply Co., Cleveland, O.

Switches, Overhead Tram-Way—

Reading Crane & Hoist Works, Reading, Pa.

Switching Ropes—

(See Ropes, Locomotive Switching.)

Switchstands, Railroad—

Indianapolis Switch & Frog Co., Springfield, O.

Swivel Forging Machines, Chain—

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Swivels, Chain—

Bradlee & Co., Beach St. and E. Susquehanna Ave., Philadelphia, Pa.

Covert Mfg. Co., Troy, N. Y.

Keystone Drop Forge Works, Chester, Pa.

Oneida Community, Kenwood, N. Y.

Wire Goods Co., Worcester, Mass.

Swivels, Halter, Harness, &c.—

(See Snaps and Swivels, Halter, Harness, &c.)

Swivels, Rope—

Broderick & Bascom Rope Co., St. Louis.

Covert Mfg. Co., Troy, N. Y.

Keystone Drop Forge Works, Chester, Pa.

Thomas Laughlin Co., Portland, Me.

A. Leschen & Sons Rope Co., St. Louis.

W. & J. Tiebout, 118 Chambers St., New York.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Syrup Pitchers—

(See Pitchers, Silver Plated.)

Table Brackets, Cutlery, &c.—

(See Brackets, Cutlery, &c.)

Tables, Bottling—

Chase Foundry & Mfg. Co., Columbus, O.

Tables, Drafting—

Keuffel & Esser Co., 127 Milton St., N. Y.

R. E. Kidder, Worcester, Mass.

Oliver Machinery Co., Grand Rapids, Mich.

Washburn Shops, Worcester, Mass.

Tables, Folding, Paper Hangers—

Webster & Perks Tool Co., Springfield, O.

Tables, Ice Cream and Cafe—

Chicago Wire Chair Co., 123 N. La Salle Ave., Chicago, Ill.

Tables, Laundry—

W. J. Clark Co., Salem, O.

Tables, Locomotive Transfer—

(See Transfer Tables, Locomotive.)

Tables, Lunch Bar—

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

Tables, Paper Cutting—

Chase Foundry & Mfg. Co., Columbus, O.

Tables, Rolling Mill—

Morgan Engineering Co., Alliance, O.

United Engineering & Foundry Co., Pittsburgh, Pa.

Tables, Saw—

E. C. Atkins & Co., Indianapolis, Ind.

Badger State Machine Co., Inc., Janesville, Wis.

Colburn Machine Tool Co., Franklin, Pa.

Crescent Machine Co., Leontonia, O.

Fox Machine Co., Grand Rapids, Mich.

Oliver Machinery Co., Grand Rapids, Mich.

Tables, Shear—

United Engineering & Foundry Co., Pittsburgh, Pa.

Tables, Stock Room—

W. J. Clark Co., Salem, O.

Tables, Straightening—

Bancroft & Co., Philadelphia, Pa.

Tables, Transfer—

(See Transfer Tables, Locomotive.)

Tablets, Bronze—

Glen Mfg. Co., Elwood City, Pa.

Tachodimeters—

Veeder Mfg. Co., Hartford, Ct.

- Weston Electrical Instrument Co., New-ark, N. J.
- Tachometers—**
(See Indicators Speed. See also Tachometers.)
- Tack Claws, Hammers, Pullers—**
(See Claws, Hammers, Pullers.)
- Tack Machinery—**
Kimball Bros. & Sprague, Brockton, Mass.
- H. J. Miller's Sons, Bridgewater, Mass.
Henry Perkins Co., Bridgewater, Mass.
F. B. Shuster Co., New Haven, Ct.
- Tack Plate Choppers and Slitters—**
Henry Perkins Co., Bridgewater, Mass.
- Tack Wire—**
(See Wire, Tack.)
- Tackle Blocks, Pulleys, &c.—**
(See Blocks, Pulleys, &c.)
- Tackle, Fishing—**
Andrew B. Hendryx Co., New Haven, Ct.
- Tacks and Nails, Brass—**
(See Nails and Tacks.)
- Tacks and Nails, Shoe—**
Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
- H. J. Miller's Sons, Bridgewater, Mass.
Milwaukee Tack Co., Milwaukee, Wis.
E. Phillips & Sons, South Hanover, Mass.
- Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Derby, Ct.
- Tacks and Nails, Zinc—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- Milwaukee Tack Co., Milwaukee, Wis.
- Tacks, Bill Poster and Railroad—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
Globe Mfg. Co., Taunton, Mass.
Milwaukee Tack Co., Milwaukee, Wis.
Shelton Co., Shelton, Ct.
- Tacks, Box, Basket, &c.—**
Cobb & Drew, Inc., Plymouth, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
- Milwaukee Tack Co., Milwaukee, Wis.
E. Phillips & Sons, South Hanover, Mass.
- Shelton Co., Shelton, Ct.
- Tacks, Brads, Finishing Nails, &c.—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
- H. J. Miller's Sons, Bridgewater, Mass.
Milwaukee Tack Co., Milwaukee, Wis.
Morgan Spring Co., Worcester, Mass.
Parker Wire Goods Co., Worcester, Mass.
E. Phillips & Sons, South Hanover, Mass.
- Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Shelton, Ct.
C. E. & E. P. Townsend Co., New Brighton, Pa.
- Turner & Stanton Co., Norwich, Ct.
Wire Goods Co., Worcester, Mass.
- Tacks, Brass—**
E. Phillips & Sons, So. Hanover, Mass.
- Tacks, Bronze—**
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Tacks, Brush—**
(See Nails and Tacks, Brush.)
- Tacks, Carpet—**
(See Tacks, Brads, Finishing Nails, &c.)
- Tacks, Coopers—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- Milwaukee Tack Co., Milwaukee, Wis.
- Tacks, Copper—**
(See Nails and Tacks, Copper.)
- Tacks, Curtain—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- Henry J. Miller's Sons, Bridgewater, Mass.
- Tacks, Cut—**
(See Tacks, Brads and Finishing Nails.)
- Tacks, Double-Pointed—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
- Cobb & Drew, Inc., Plymouth, Mass.
W. D. Gibson Co., Huron and Kingsbury Sts., Chicago, Ill.
- Grand Crossing Tack Co., Grand Crossing, Ill.
- Milwaukee Tack Co., Milwaukee, Wis.
Morgan Spring Co., Worcester, Mass.
Parker Wire Goods Co., Worcester, Mass.
E. H. Titchener & Co., Binghamton, N.Y.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.
- Tacks, Galvanized—**
Keystone Nail Co., Philadelphia, Pa.
Shelton Co., Shelton, Ct.
Thomas Laughlin Co., Portland, Me.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.
- Tacks, Lace and Gimp, Japanned—**
E. Phillips & Sons, So. Hanover, Mass.
- Tacks, Miners—**
Henry J. Miller's Sons, Bridgewater, Mass.
Milwaukee Tack Co., Milwaukee, Wis.
Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Shelton, Ct.
- Tacks, Phosphor-Bronze—**
Phosphor-Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
- Tacks, Rubber Head—**
H. O. Canfield Co., Bridgeport, Ct.
Elastic Tip Co., Boston, Mass.
- Tacks, Swede and American Iron—**
(See Tacks, Brads, Finishing Nails, &c.)
- Tacks, Thumb—**
Keuffel & Esser Co., 127 Fulton St., N. Y.
- Tacks, Tin Cap—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- Tacks, Tinned—**
Wilcox, Crittenden & Co., Inc., Middletown, Ct.
- Tacks, Trimmers—**
Grand Crossing Tack Co., Grand Crossing, Ill.
- E. Phillips & Sons, South Hanover, Mass.
Shelton Co., Shelton, Ct.
- Tacks, Upholsterers', Gimp and Lace—**
Cobb & Drew, Inc., Plymouth, Mass.
Globe Mfg. Co., Taunton, Mass.
Grand Crossing Tack Co., Grand Crossing, Ill.
- Henry J. Miller's Sons, Bridgewater, Mass.

Milwaukee Tack Co., Milwaukee, Wis.
E. Phillips & Sons, South Hanover, Mass.

Ripley & Bartlett, Plymouth, Mass.
Shelton Co., Shelton, Ct.

Tag Fasteners—
 (See Fasteners, Tag.)

Tags, Brass—
Arthur T. Rutter & Co., 256 Broadway, New York

Waterbury Brass Co., Waterbury, Ct.

Talc Crayons—
 (See Crayons, Lumber, Marble, Metal Workers', &c.)

Tallow Pots—
 (See Pots.)

Tampers and Scrapers (combined)—
Hubbard & Co., Pittsburgh, Pa.

Tampers, Earth, Grout, &c.—
Western Foundry & Sash Weight Co., 2d and Miller Sts., St. Louis, Mo.

Tank Governors, &c.—
 (See Governors, &c.)

Tank Work—
Abendroth & Root Mfg. Co., Newburgh, N. Y.

Baltimore Bridge Co., Baltimore, Md.

Duff Patents Co., Pittsburgh, Pa.

Forest City Steel & Iron Co., Cleveland.

Franklin Boiler Works Co., Troy, N. Y.

A. D. Granger Co., West St. Bldg., N. Y.

E. Keeler Co., Williamsport, Pa.

Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.

Meehan Boiler & Construction Co., Lowellville, O.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

R. S. Newbold & Son Co., Norristown, Pa.

New Jersey Foundry & Machine Co., 9-15 Murray St., New York.

Northern Engineering Works, Detroit, Mich.

Pennsylvania Engineering Works, New Castle, Pa.

Petroleum Iron Works Co., Sharon, Pa.

Pittsburgh Steel Construction Co., Pittsburgh, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Charles G. Shepard, Buffalo, N. Y.

Tudor Boiler Mfg. Co., Cincinnati, O.

Virginia Bridge & Iron Co., Roanoke, Va.

Warren City Tank & Boiler Works, Warren, O.

Robert Wetherill & Co., Chester, Pa.

Wickes Bros., Saginaw, Mich.

Tanks, Acid—
 (See Acid Tanks, Tubs, &c.)

Tanks, Acid Wire Mill—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Tanks, Alcohol—
Gem Mfg. Co., Boston, Mass.

Wilson & Friend Co., 200 E. Kinzie St., Chicago, Ill.

Tanks, Automobile—
Avery Stamping Co., Cleveland, O.

E. B. Badger & Sons Co., Boston, Mass.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

John R. Keim Mills, Inc., Buffalo, N. Y.

Wm. B. Scaife & Sons Co., Pittsburgh.

Tanks, Blow Off—
 (See Blow Off Tanks.)

Tanks, Car—

A. D. Granger Co., West St. Bldg., N. Y.

Meehan Boiler & Construction Co., Lowellville, O.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Petroleum Iron Works Co., Sharon, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh.

Tanks, Chemical Proof—

Zucker & Levett & Loeb Co., 525-530 W. 25th St., New York.

Tanks, Cold Drawn Steel—

Avery Stamping Co., Cleveland, O.

Janney, Steinmetz & Co., Drexel Bldg., Philadelphia, Pa.

John R. Keim Mills, Inc., Buffalo, N. Y.

Tanks, Dipping, Steel—

A. D. Granger Co., West St. Bldg., N. Y.

Meehan Boiler & Construction Co., Lowellville, O.

Wm. B. Scaife & Sons Co., Pittsburgh.

Tanks, Expansion and Anti-Expansion—

A. D. Granger Co., West St. Bldg., N. Y.

Wm. B. Scaife & Sons Co., Pittsburgh.

Tanks, Factory—

Bethlehem Foundry & Machine Co., So. Bethlehem, Pa.

W. E. Caldwell Co., Louisville, Ky.

W. J. Clark Co., Salem, O.

Franklin Boiler Works Co., Troy, N. Y.

A. D. Granger Co., West St. Bldg., N. Y.

E. Keeler Co., Williamsport, Pa.

Benj. F. Kelley & Son, 91 Liberty St., New York.

Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.

Meehan Boiler & Construction Co., Lowellville, O.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

R. S. Newbold & Son Co., Norristown, Pa.

Petroleum Iron Works Co., Sharon, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Charles G. Shepard, Buffalo, N. Y.

Tudor Boiler Mfg. Co., Cincinnati, O.

Wickes Bros., Saginaw, Mich.

Tanks for Plumbing Purposes—

John R. Keim Mills, Inc., Buffalo, N. Y.

Tanks, Gas, Air, Soda Water, &c.—

American Gas Machine Co., Albert Lea, Minn.

American Well Works, Aurora, Ill.

Avery Stamping Co., Cleveland, O.

A. D. Granger Co., West St. Bldg., N. Y.

Jungesol-Rand Co., 11 Broadway, N. Y.

Janney, Steinmetz & Co., Philadelphia.

E. Keeler Co., Williamsport, Pa.

Meehan Boiler & Construction Co., Lowellville, O.

R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Pennsylvania Engineering Works, New Castle, Pa.

Pressed Steel Tank Co., Milwaukee, Wis.

Thomas Prosser & Son, 26 Platt St., N. Y.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.

Wm. B. Scaife & Sons Co., Pittsburgh

Tudor Boiler Mfg. Co., Cincinnati, O.

Tanks, Gasoline—

Gem Mfg. Co., Boston, Mass.

R. Munroe & Sons Mfg. Corporation,
Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh,
Pa.

Wilson & Friend Co., 200 E. Kinzie St.,
Chicago, Ill.

Tanks, Gasoline. Under-
ground—

Wilson & Friend Co., 200 E. Kinzie St.,
Chicago, Ill.

Tanks, Grain—

A. D. Granger Co., West St. Bldg., N. Y.
Meehan Boiler & Construction Co., Low-

ellville, O.

R. Munroe & Sons Mfg. Corporation,
Pittsburgh, Pa.

Tanks, Harness Dipping
Basket—

Wilson & Friend Co., 200 E. Kinzie St.,
Chicago, Ill.

Tanks, Hot Water—

W. E. Caldwell Co., Louisville, Ky.

A. D. Granger Co., West St. Bldg., N. Y.
Meehan Boiler & Construction Co., Low-

ellville, O.

Wm. B. Scaife & Sons, Pittsburgh, Pa.

Tanks, Mixing, Square and
Deep—

Stuart & Peterson Co., Burlington, N. J.

Tanks, Oil—

American Well Works, Aurora, Ill.

W. E. Caldwell Co., Louisville, Ky.

W. J. Clark Co., Salem, O.

Delphos Mfg. Co., Delphos, O.

Gem Mfg. Co., Boston, Mass.

A. D. Granger Co., West St. Bldg., N. Y.

E. Keeler Co., Williamsport, Pa.

Meehan Boiler & Construction Co., Low-

ellville, O.

R. Munroe & Sons Mfg. Corporation,
Pittsburgh, Pa.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Pennsylvania Engineering Works, New
Castle, Pa.

Petroleum Iron Works Co., Sharon, Pa.

Ritter-Conley Mfg. Co., Pittsburgh, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Warren City Tank & Boiler Works, War-

ren, O.

Wilson & Friend Co., 200 E. Kinzie St.,
Chicago, Ill.

Tanks, Stock and Wind
Mill, Steel—

W. E. Caldwell Co., Louisville, Ky.

A. D. Granger Co., West St. Bldg., N. Y.

E. Keeler Co., Williamsport, Pa.

Kenwood Bridge Co., First National Bank
Bldg., Chicago, Ill.

Mast-Foos & Co., Springfield, O.

R. Munroe & Sons Mfg. Corporation,
Pittsburgh, Pa.

H. S. Newbold & Son Co., Norristown, Pa.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Petroleum Iron Works Co., Sharon, Pa.

Wm. B. Scaife & Sons Co., Pittsburgh, Pa.

Warren City Tank & Boiler Works, War-

ren, O.

Tanks, Stock and Wind
Mill, Wood—

W. E. Caldwell Co., Louisville, Ky.

Mast-Foos & Co., Springfield, O.

Tanks, Varnish—

Wm. B. Scaife & Sons Co., Pittsburgh,
Pa.

Wilson & Friend Co., 200 E. Kinzie St.,
Chicago, Ill.

Tannery Machinery—

Geo. V. Cresson Co., 18th St. and Alle-

gheny Ave., Philadelphia, Pa.

Tap and Reel Stock—

Graton & Knight Mfg. Co., Worcester,
Mass.

Tap Bolts, Drills, &c.—
(See Bolts, Drills, &c.)

Taper Rolling Machines—

Williams, White & Co., Moline, Ill.

Taper Threading Ma-
chines—

Acme Machinery Co., Cleveland, O.

Webster & Perks Tool Co., Springfield, O.

Tapes, Measuring—
(See Measures, Tape.)

Tapping and Reaming Ma-
chines—

Landis Machine Co., Waynesboro, Pa.

Tapping and Reaming Ma-
chines, Multiple Spindle—

Acme Machinery Co., Cleveland, O.

National Machinery Co., Tiffin, O.

Tapping and Reaming Ma-
chines, Portable—

Gem Mfg. Co., Pittsburgh, Pa.

Ingersoll-Rand Co., 11 Broadway, N. Y.

Stow Flexible Shaft Co., 25th and Callow-

hill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

Tapping Attachments, Auto-
matic—

Gould & Eberhardt, Newark, N. J.

Tapping Machines—

Acme Machinery Co., Cleveland, O.

American Tool Works Co., Cincinnati, O.

Burke Machinery Co., Cleveland, O.

Butterfield & Co., Derby Line, Vt.

Cincinnati Machine Tool Co., Cincinnati,

Garvin Machine Co., Spring and Varick
Sts., New York.

Gem Mfg. Co., Pittsburgh, Pa.

Gould & Eberhardt, Newark, N. J.

Grant Mfg. & Machine Co., Bridgeport,
Ct.

Hartford Machine Screw Co., Hartford, Ct.

Harvey Hubbell, Bridgeport, Ct.

Landis Machine Co., Waynesboro, Pa.

J. Manville Machine Co., Waterbury,
Ct.

National Machine Co., Hartford, Ct.

National Machinery Co., Tiffin, O.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.

A. D. Quint, Hartford, Ct.

D. Saunders' Sons, Yonkers, N. Y.

Schuchardt & Schutte, 136 Liberty St.,
New York.

Dwight Slate Machine Co., Hartford, Ct.

Sloan & Chace Mfg. Co., Ltd., Newark,
N. J.

Stow Flexible Shaft Co., 25th and Callow-

hill Sts., Philadelphia, Pa.

Stow Mfg. Co., Binghamton, N. Y.

Webster & Perks Tool Co., Springfield, O.

F. E. Wells & Sons Co., Greenfield, Mass.

Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield,
Mass.

Williams, White & Co., Inc., Moline, Ill.

MERCHANTS

Baird Machinery Co., Pittsburgh, Pa.

Hill, Clarke & Co., Boston, Mass.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.
Marshall & Huschart Machinery Co., 62
S. Canal St., Chicago, Ill.
Edgar M. Moore & Co., Pittsburgh, Pa.
Motch & Merryweather Machinery Co.,
Cleveland, O.
Prentiss Tool & Supply Co., 115 Liberty
St., New York.
Vandyck, Churchill Co., 8 Dey St., N. Y.
A. D. White Machinery Co., 39-41 S.
Canal St., Chicago, Ill.

Tapping Machines, Auto-

matic-
National Machinery Co., Tiffin, O.
Tapping Machines, Nut-
Acme Machinery Co., Cleveland, O.
Automatic Machine Co., Bridgeport, Ct.
Blake & Johnson Co., Waterbury, Ct.
Landis Machine Co., Waynesboro, Pa.
National Machinery Co., Tiffin, O.
Niles-Bement-Pond Co., 111 Broadway,
New York.

Webster & Perks Tool Co., Springfield, O.
Wells Bros. Co., Greenfield, Mass.

Tapping Machines, Nut, Auto-

matic-
Acme Machinery Co., Cleveland, O.

Tapping Machines, Turn

buckle-
Acme Machinery Co., Cleveland, O.
National Machinery Co., Tiffin, O.
Webster & Perks Tool Co., Springfield, O.

Taps-

Butterfield & Co., Derby Line, Vt.
J. M. Carpenter Tap & Die Co., Paw-

tucket, R. I.
Cleveland Twist Drill Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Ct.
Lapointe Machine Tool Co., Hudson,
Mass.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Pratt & Whitney Co., Hartford, Ct.
St. Louis Screw Co., St. Louis, Mo.
Standard Tool Co., Cleveland, O.
Wells Bros. Co., Greenfield, Mass.

Whitaker Mfg. Co., Chicago, Ill.
Whitman & Barnes Mfg. Co., Chicago.
Wiley & Russell Mfg. Co., Greenfield,
Mass.

Taps, Adjustable-

J. M. Carpenter Tap & Die Co., Paw-

tucket, R. I.
Lapointe Machine Tool Co., Hudson,
Mass.

Wm. J. Smith Co., New Haven, Ct.

Taps and Dies-

(See Stocks, Taps and Dies.)

Taps and Drills-

Butterfield & Co., Derby Line, Vt.
Cleveland Twist Drill Co., Cleveland, O.
Goodell-Pratt Co., Greenfield, Mass.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
E. F. Reece Co., Greenfield, Mass.

St. Louis Screw Co., St. Louis, Mo.
Standard Tool Co., Cleveland, O.

Wells Bros. Co., Greenfield, Mass.
Whitaker Mfg. Co., Chicago, Ill.

Whitman & Barnes Mfg. Co., Chicago,

Wiley & Russell Mfg. Co., Greenfield,
Mass.

Taps and Reamers, Pipe-

American Die & Tool Co., Reading, Pa.
Butterfield & Co., Derby Line, Vt.

S. W. Card Mfg. Co., Mansfield, Mass.
J. M. Carpenter Tap & Die Co., Paw-

tucket, R. I.
Landis Machine Co., Waynesboro, Pa.

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Niles-Bement-Pond Co., 111 Broadway,
New York.

Pratt & Whitney Co., Hartford, Ct.
E. F. Reece Co., Greenfield, Mass.

D. Saunders' Sons, Yonkers, N. Y.
Standard Tool Co., Cleveland, O.

Walworth Mfg. Co., Boston, Mass.
Wells Bros. Co., Greenfield, Mass.

Whitaker Mfg. Co., Chicago, Ill.
Whitman & Barnes Mfg. Co., Chicago.

Wiley & Russell Mfg. Co., Greenfield,
Mass.

Taps, Blacksmiths'-

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Taps, Champagne-

Erie Specialty Co., Erie, Pa.
Landers, Frary & Clark, New Britain, Ct.

Taps, Collapsible and Ad-

justable-
Geometric Tool Co., New Haven, Ct.

Taps, Hob or Master-

(See Taps.)
Taps, Inserted Blade Gas

Pipe-
W. H. Nicholson & Co., Wilkes-Barre, Pa.

Taps, Machine Screw-

(See Taps.)
Taps, Nut-

(See Taps.)
Taps, Stay Bolt-

(See Taps.)
Taps, Stove Bolt-

(See Taps.)
Taps, Tapper-

(See Taps.)
Tar Furnaces-

(See Furnaces, Portable, &c.)
Tar Paper Saturating Ma-

chines-
(See Saturating Machines for Tar Paper.)

Tea Bells, Kettles, &c.-

(See Bells, Kettles, &c.)
Tees-

(See Angles and Tees.)
Teeth, Bundle Carrier-

Harrow Spring Co., Kalamazoo, Mich.

Teeth, Cider Mill-

Shelton Co., Shelton, Ct.

Teeth, Coal Breaker-

Keystone Drop Forge Works, Chester, Pa.

Kilborn & Bishop Co., New Haven, Ct.

Teeth, Harrow-

Bancroft & Co., Fifth and Chestnut Sts.,
Philadelphia, Pa.

Inland Steel Co., First National Bank
Bldg., Chicago, Ill.

M. Lanz & Sons, Pittsburgh, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.

Teeth, Harrow Spring-

Harrow Spring Co., Kalamazoo, Mich.

Teeth, Hay Loading-

W. D. Gerson Co., Harmon and Kingsbury
Sts., Chicago, Ill.

Harrow Spring Co., Kalamazoo, Mich.
Raymond Mfg. Co., Corry, Pa.

Teeth, Hay Rake and Ted-
der—

Harrow Spring Co., Kalamazoo, Mich.
Teeth, Rake—

American Steel & Wire Co., The Rookery,
Chicago, Ill.

Teeth, Threshing Machine—
Cambria Forge Co., Johnstown, Pa.

Keystone Drop Forge Works, Chester, Pa.
Kilborn & Bishop Co., New Haven, Ct.

Rhode Island Tool Co., Providence, R. I.
Transue & Williams Co., Alliance, O.

Telegraph and Telephone
Goods—

John R. Keim Mills, Inc., Buffalo, N. Y.
Kilborn & Bishop Co., New Haven, Ct.

M. Lanz & Sons, Pittsburgh, Pa.
W. R. Ostrander & Co., 22 Dey St.,
New York.

Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Telegraph and Telephone
Pole Line Equipment—

American Steel & Wire Co., The Rookery,
Chicago, Ill.

Wm. H. Haskell Mfg. Co., Pawtucket,
R. I.

Hubbard & Co., Pittsburgh, Pa.
Kilborn & Bishop Co., New Haven, Ct.

M. Lanz & Sons, Pittsburgh, Pa.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Republic Iron & Steel Co., Pittsburgh,
Pa.

Telegraph and Telephone
Pole Supplies (Pins, Brack-
ets, Cross Arms, Cleats,
Cross Arm Braces, Steps,
&c.)—

American Iron & Steel Mfg. Co., Leba-
non, Pa.

Billings & Spencer Co., Hartford, Ct.
Grabier Mfg. Co., Cleveland, O.

Hubbard & Co., Pittsburgh, Pa.
Inland Steel Co., First National Bank
Bldg., Chicago, Ill.

Kilborn & Bishop Co., New Haven, Ct.
M. Lanz & Sons, Pittsburgh, Pa.

New Castle Forge & Bolt Co., New
Castle, Pa.

New Jersey Foundry & Machine Co., 9-15
Murray St., New York.

Nicotown Plate Washer Co., 1822-1850 W.
Junata St., Philadelphia, Pa.

Strieby & Foot Co., Newark, N. J.

Telegraph and Telephone
Wire—

(See Wire, Telephone and Telegraph.)
Telegraph Pole Spoons—

(See Shovels and Spoons, Pole.)
Telephone and Telegraph
Goods—

(See Telegraph and Telephone Goods.)
Telephone Bells—

(See Bells, Telephone.)
Telephone Parts—

Boston Pressed Metal Co., Worcester,
Mass.

Telephones, Interior—
Nanz Clock Co., 127 Duane St., N. Y.

Telescopes, Rifle and Pis-
tol—

J. Stevens Arms & Tool Co., Chicopee
Falls, Mass.

Telphers—
Modern Steel Structural Co., Waukesha,
Wis.

Temperature Recording In-
struments—

(See Recording Instruments, Tempera-
ture, also Thermometers.)

Tempering Compounds—
F. R. Phillips & Sons Co., Pennsylvania
Bldg., Philadelphia, Pa.

Templates—
Buchanan Foundry Co., Lebanon, Pa.

Tennis Court Rollers—
(See Rollers, Polo and Tennis.)

Ten Pins and Balls—
(See Balls and Pins.)

Tenon Machines, Spoke—
(See Spoke Tenon Machines.)

Tenoning Machines—
Oliver Machinery Co., Grand Rapids,
Mich.

Tension Carriages, Rope
Transmission—

H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

W. E. Caldwell Co., Inc., Louisville, Ky.
Jeffrey Mfg. Co., Columbus, O.

Terne Plate—
(See Plate, Tin and Terne.)

Testers, Center—
J. T. Slocomb Co., Providence, R. I.

L. S. Starrett Co., Athol, Mass.

Testers, Flour—
E. C. Atkins & Co., Indianapolis, Ind.

Testers, Grain—
W. J. Clark Co., Salem, O.

Testing Bureau, Rails and
Railway Material—

Robert W. Hunt & Co., 66 B'way N. Y.

Testing Laboratories, Physi-
cal—

Henry Souther Engineering Co., Hartford,
Ct.

Testing Machines, Bench
Center—

Morse Twist Drill & Machine Co., New
Bedford, Mass.

Testing Machines, Chain—
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.

Testing Machines, Metal—
United Engineering & Foundry Co.,
Pittsburgh, Pa.

Testing Machines, Pipe—
Taylor-Wilson Co., McKees Rocks, Pa.

Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Testing Machines, Wire—
Morgan Construction Co., Worcester,
Mass.

Testing Presses, Pipe—
Taylor-Wilson Mfg. Co., McKees Rocks,
Pa.

United Engineering & Foundry Co.,
Pittsburgh, Pa.

Watson-Stilman Co., 26 Cortlandt St.,
New York.

Testing Sets, Electric—
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Tests, Drop—
Case Mfg. Co., Columbus, O.

Morgan Engineering Co., Alliance, O.

Whiting Foundry Equipment Co., Har-
vey, Ill.

- Tethers, Animal**—
Bridgeport Chain Co., Bridgeport, Ct.
- Textile Machinery**—
Dodge Mfg. Co., Mishawaka, Ind.
Mossberg Wrench Co., Central Falls, R. I.
Schuchardt & Schutte, 136 Liberty St., New York.
- Thermometers**—
Taylor & Fenn Co., Hartford, Ct.
- Thermit Process Welding Iron and Steel**—
Goldschmidt Thermit Co., 43 Exchange Pl., New York.
- Thermometers**—
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Edward Brown & Son, 311½ Walnut St., Philadelphia, Pa.
Crosby Steam Gauge & Valve Co., Boston.
- Thermometers, Recording**—
Bristol Co., Waterbury, Ct.
Edward Brown & Son, 311 Walnut St., Philadelphia, Pa.
- Thermometers, Silver Plated**—
International Silver Co., Meriden, Ct.
- Thermometers**—
W. R. Ostrander & Co., 22 Dey St., New York.
- Thimbles and Hooks**—
(See Hooks and Thimbles.)
- Thimbles and Rings, Stove Pipe**—
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
S. Cheney & Son, Manlius, N. Y.
City Forge & Iron Works, Dayton, O.
Ohio Stove Pipe & Mfg. Co., New Philadelphia, O.
- Thimbles, Guy**—
M. Lanz & Sons, Pittsburgh, Pa.
Thomas Laughlin Co., Portland, Me.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.
- Thimbles, Rope**—
Broderick & Bascom Rope Co., St. Louis.
Covert Mfg. Co., Troy, N. Y.
M. Lanz & Sons, Pittsburgh, Pa.
Thomas Laughlin Co., Portland, Me.
A. Leschen & Sons Rope Co., St. Louis.
Waterbury Co., 69 South St., New York.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.
- Thimbles, Sewing**—
Williamsport Wire Rope Co., Williamsport, Pa.
- Thimbles, Sewing**—
Scovill Mfg. Co., Waterbury, Ct.
- Thread Rolling Machines, Screw**—
Acme Machinery Co., Cleveland, O.
Blake & Johnson Co., Waterbury, Ct.
E. J. Manville Machine Co., Waterbury, Ct.
- Threaders and Pointers, Wood Screw**—
Asa S. Cook Co., Hartford, Ct.
- Threaders, Automatic Bolt**—
Acme Machinery Co., Cleveland, O.
National Machinery Co., Tiffin, O.
- Threaders, Bicycle Spoke**—
Blake & Johnson Co., Waterbury, Ct.
Geometric Tool Co., New Haven, Ct.
Gordell Pratt Co., Greenfield, Mass.
- Threaders**—
E. J. Manville Machine Co., Waterbury, Ct.
- Waterbury Farrel Foundry & Machine Co.**, Waterbury, Ct.
- Webster & Perks Tool Co.**, Springfield, O.
- Threaders, Bolt**—
Acme Machinery Co., Cleveland, O.
Blake & Johnson Co., Waterbury, Ct.
Asa S. Cook Co., Hartford, Ct.
Detrick & Harvey Machine Co., Baltimore, Md.
- Landis Machine Co.**, Waynesboro, Pa.
E. J. Manville Machine Co., Waterbury, Ct.
- National Machinery Co.**, Tiffin, O.
- Niles-Bement-Pond Co.**, 111 Broadway, New York.
- Pratt & Whitney Co.**, Hartford, Ct.
- E. F. Reece Co.**, Greenfield, Mass.
- Webster & Perks Tool Co.**, Springfield, O.
- Wells Bros. Co.**, Greenfield, Mass.
- Wiley & Russell Mfg. Co.**, Greenfield, Mass.
- Threaders, Lag Screw**—
Blake & Johnson Co., Waterbury, Ct.
Asa S. Cook Co., Hartford, Ct.
Landis Machine Co., Waynesboro, Pa.
National Machinery Co., Tiffin, O.
- Threaders, Pipe**—
Bignall & Keeler Mfg. Co., Edwardsville, Ill.
Landis Machine Co., Waynesboro, Pa.
Loew Mfg. Co., Cleveland, O.
National Machinery Co., Tiffin, O.
Stoever Foundry & Mfg. Co., Lebanon, Pa.
- United Engineering & Foundry Co.**, Pittsburgh, Pa.
- Walworth Mfg. Co.**, Boston, Mass.
- Wiley & Russell Mfg. Co.**, Greenfield, Mass.
- Threaders, Wagon Skein**—
Acme Machinery Co., Cleveland, O.
Landis Machine Co., Waynesboro, Pa.
Webster & Perks Tool Co., Springfield, O.
- Threading and Cutting Machines, Pipe**—
(See Pipe Cutting and Threading Machines.)
- Threading Lathes**—
(See Lathes, Automatic Screw Threading.)
- Threading Machines, Lag and Coach Screw**—
Blake & Johnson Co., Waterbury, Ct.
- Threading Machines, Nipple**—
Detrick & Harvey Machine Co., Baltimore, Md.
- Threading Machines, Sheet Metal**—
E. W. Bliss Co., Brooklyn, N. Y.
Consolidated Press & Tool Co., Hastings, Mich.
- Ferracute Machine Co.**, Bridgeton, N. J.
- Threading Tools**—
(See Tools, Thread Cutting Lathe.)
- Threshing Machine Teeth**—
(See Teeth, Threshing Machine.)
- Thumb Nut and Screw Blanks**—
(See Blanks.)
- Thumb Nuts, Screws**—
(See Nuts, Screws.)
- Ticket Dating Stamp**—
(See Stamps, Dating Railroad Ticket.)
- Ticket Hooks, Punches**—
(See Hooks, Punches.)

Tie-out Chains—

(See Tethers, Animal.)

Tie Rods— (See Rods, Tie.)**Tie Tongs, Plate Swages,****Plug Punches—**
(See Tools, Railroad Track.)**Ties, Bale—**

Acme Steel Goods Co., 234-240 Archer

Ave., Chicago, Ill.

American Steel & Wire Co., The Rookery;

Chicago, Ill.

Dillon-Griswold Wire Co., Sterling, Ill.

Griswold Wire Co., Braddock, Pa.

Ohio Bale Tie Co., Cleveland, O.

Ties, Cattle and Horse—

Bridgeport Chain Co., Bridgeport, Ct.

Covert Mfg. Co., Troy, N. Y.

Oneida Community, Kenwood, N. Y.

Standard Chain Co., Pittsburgh, Pa.

Wiebusch & Hilger, Ltd., 9-15 Murray

St., New York.

Ties, Cotton—

American Tube & Stamping Co., Bridge-

port, Ct.

Carnegie Steel Co., Pittsburgh, Pa.

Pittsburgh Steel Co., Pittsburgh, Pa.

Ties, Livestock—

Covert Mfg. Co., Troy, N. Y.

Ties, Steel, for Industrial**Works, Mines, Planta-****tions, &c.—**

Avery Stamping Co., Cleveland, O.

Arthur Koppel Co., Pittsburgh, Pa.

Ties, Steel Railroad—

Atlas Car & Mfg. Co., Cleveland, O.

Avery Stamping Co., Cleveland, O.

Carnegie Steel Co., Pittsburgh, Pa.

Hillen Steel Rail Works, Utrecht, Hol-

land.

Arthur Koppel Co., Pittsburgh, Pa.

Lackawanna Steel Co., 2 Rector St., N. Y.

Ernst Wiener, Broad and Beaver Sts.,

New York.

Tighteners, Belt—

(See Belt Tighteners.)

Tile Machinery—

Turner, Vaughn & Taylor Co., Cuyahoga

Falls, O.

Tile, Oven—

Harbison-Walker Refractories Co., Pitts-

burgh, Pa.

Hayes Run Fire Brick Co., Orris, Pa.

Tiles, Clay Roofing—

Henry Mauer & Son, 420 E. 23d St., N. Y.

Tiles, Metallic Roofing—

Eller Mfg. Co., Canton, O.

Merchant & Evans Co., Philadelphia, Pa.

Tiles, Metallic, Wainscot,**Wall, &c.—**

New York Metal Ceiling Co., 537-539 W.

24th St., New York.

Tiling or Ditching Shovels—

(See Shovels, Tiling or Ditching.)

Tiling, Rubber, Interlock-**ing—**

New York Belting & Packing Co., 91-93

Chambers St., New York.

Tiling, Steel Floor—

American Tube & Stamping Co., Bridge-

port, Ct.

Timber Dollies, Dogs,**Scribes, Stirrups, &c.—**

(See Dollies, Dogs, Scribes, Stirrups, &c.)

Timber Grapples—

(See Irons, Grappling.)

Timber Unloaders—

Soule Steam Feed Works, Meridian, Miss.

Time Checks—

(See Checks.)

Time Detectors—

(See Clocks, Watchman's.)

Time Recorders, Electri-**cal—**

Bristol Co., Waterbury, Ct.

Tin—

American Metal Co., 52 Broadway, N. Y.

Empire Metal Co., Syracuse, N. Y.

General Supply-Iron-Steel & Rail Co.,

Cincinnati, O.

Arthur C. Harvey Co., Boston, Mass.

Hendricks Bros., 49 Cliff St., New York.

Theo. Hertz Metal Co., St. Louis, Mo.

Merchant & Evans Co., Philadelphia, Pa.

Pittsburgh White Metal Co., Pittsburgh.

Waite, Banlet & Co., Boston, Mass.

Walsh's Sons & Co., Newark, N. J.

Tin Boxes, Pails, &c.—

(See Boxes, Pails, &c.)

Tin, Continuous Roofing—

(See Roofing in Rolls.)

Tin Foil Rolling Mills—

(See Mills for Rolling Tin Foil.)

Tin, Perforated—

Erdle Perforating Co., Rochester, N. Y.

Harrington & King Perforating Co., 224

N. Union St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Chas. Mundt & Sons, 441-447 Pearl St.,

New York.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Tin, Phosphorized—

Crescent Phosphorized Metal Co., Phila-

delphia, Pa.

Empire Metal Co., Syracuse, N. Y.

Tin Plate—

(See Plate, Tin and Terne.)

Tin Plate Machinery—

American Furnace & Machine Co., Pitts-

burgh, Pa.

Birdsboro Steel Foundry & Machine Co.,

Birdsboro, Pa.

Erie Forge Co., Erie, Pa.

Fawcett Machine Co., Pittsburgh, Pa.

Mesta Machine Co., Pittsburgh, Pa.

R. S. Newbold & Son Co., Norristown, Pa.

Philadelphia Roll & Machine Co., 23d St.

& Washington Ave., Philadelphia, Pa.

Poole Engineering & Machine Co., Balti-

more, Md.

Wm. Swindell & Bro., Pittsburgh, Pa.

Tin Plates, Dairy—

American Sheet and Tin Plate Co., Pitts-

burgh, Pa.

Follansbee Bros. Co., Pittsburgh, Pa.

Tin Roofing—

Chattanooga Roofing & Foundry Co.,

Chattanooga, Tenn.

Tin, Taggers—

American Sheet and Tin Plate Co., Pitts-

burgh, Pa.

Tincture Presses—

(See Presses, Tincture.)

Tinned Sheets, Large Size—

American Sheet and Tin Plate Co., Pitts-

burgh, Pa.

Follansbee Bros. Co., Pittsburgh, Pa.

Tinners' and Plumbers' Fur-**naces—**

(See Furnaces, Plumbers' and Tinners'.)

Tinners' Rules, Shears,**Snips, Stakes—**

(See Rules, Shears, Snips, Stakes.)

Tinners' Tools and Machines—
 Badger State Machine Co., Janesville, Wis.
 Ferracute Machine Co., Bridgeton, N. J.
 Merchant & Evans Co., Philadelphia, Pa.
 Niagara Machine & Tool Works, Buffalo, N. Y.
 George A. Ohl & Co., Newark, N. J.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.

Tinners' Trimmings (Ash Can Handles, Boiler Handles)—

Arcade Mfg. Co., Freeport, Ill.
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
 Columbia Grey Iron Co., Columbia, Pa.
 Griswold Mfg. Co., Erie, Pa.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
 E. Phillips & Son, South Hanover, Mass.
 Wrightsville Hardware Co., Wrightsville, Pa.

Tinning—
 Alaska Freezer Co., Winchendon, Mass.
 Avery Stamping Co., Cleveland, O.
 Gem Mfg. Co., Boston, Mass.
 Gueder & Paesch Mfg. Co., Milwaukee, Wis.
 E. Phillips & Sons, So. Hanover, Mass.
 Wright Wire Co., Worcester, Mass.

Tinning Machines—
 R. S. Newbold & Son Co., Norristown, Pa.
Tinware, Butchers'—
 Sturges & Burn Mfg. Co., Chicago, Ill.

Tinware, Galvanized Ware, Railroad and Mine—
 Johnson Mfg. Co., Urbana, O.

Tinware, Heavy, to Order—
 Johnson Mfg. Co., Urbana, O.

Tinware Machinery—
 Adriance Machine Works, Brooklyn, N. Y.
 E. W. Bliss Co., Brooklyn, N. Y.
 Consolidated Press & Tool Co., Hastings, Mich.

Ferracute Machine Co., Bridgeton, N. J.
 Niagara Machine & Tool Works, Buffalo, N. Y.

George A. Ohl & Co., Newark, N. J.
 F. B. Shuster Co., New Haven, Ct.

Tinware, Pieced and Stamped—

Gueder & Paeschke Mfg. Co., Milwaukee, Wis.
 Lalance & Grosjean Mfg. Co., 299 Broadway, New York.

Tipples, Coal—
 Brown Hoisting Machinery Co., Cleveland, O.

Jeffrey Mfg. Co., Columbus, O.
 Meehan Boiler & Construction Co., Lowellville, O.

Wm. B. Scalf & Sons Co., Pittsburgh, Pa.

Tips and Fenders, Rubber—
 H. O. Canfield Co., Bridgeport, Ct.

New York Belting & Packing Co., 91-93 Chambers St., New York.

Tips, Chair and Crutch—
 Elastic Tip Co., Boston, Mass.

New York Belting & Packing Co., 91-93 Chambers St., New York.

Tips, Fishing Rod—
 Horton Mfg. Co., Bristol, Ct.

Tips, Hame—
 Walter R. Woodruff & Sons Co., Mt. Carmel, Ct.

Tips, or Sockets, Shaft, Yoke, Pole and Whiffletree—

Boston Pressed Metal Co., Worcester, Mass.
 Detroit Forging Co., Detroit, Mich.
 Sparks-Withington Co., Ltd., Jackson, Mich.

Walter W. Woodruff & Sons Co., Mount Carmel, Ct.

Worcester Pressed Steel Co., Worcester, Mass.

Tips, Screw—
 Elastic Tip Co., Boston, Mass.

Tire Benders, Bolts, &c.—
 (See Benders, Bolts, &c.)

Tire Measuring Wheels—
 (See Wheels, Tire Measuring.)

Tire Shrinkers—
 Champion Blower & Forge Co., Lancaster, Pa.

Tires, Baby Cab, Rubber—
 Springfield Tire & Rubber Co., Springfield, O.

Tires, Car and Locomotive—
 Carnegie Steel Co., Pittsburgh, Pa.

Thomas Prosser & Son, 15 Gold St., N. Y.

Tires, Steel—
 Thomas Prosser & Son, 15 Gold St., N. Y.

Standard Welding Co., Cleveland, O.

Toasters—
 Andrews Wire & Iron Works, Rockford, Ill.

Parker Wire Goods Co., Worcester, Mass.

Schneider & Trenkamp Division, American Store Co., Cleveland, O.

(See also Kitchen Articles, Wire.)

Tobacco Cutters, &c.—
 (See Cutters, &c.)

Toe Calks—
 (See Calks.)

Toggles, Screw—
 New Jersey Foundry & Machine Co., 9-13 Murray St., New York.

Toilet Clippers—
 (See Clippers, Horse and Toilet.)

Tomato Guards—
 (See Guards, Flower and Tomato.)

Tongs—
 (See Shovels, Tongs, Pokers, Fire Sets, &c.)

Tongs, Blacksmiths'—
 Heller Bros. Co., Newark, N. J.

Moore Drop Forging Co., Springfield, Mass.

Tongs, Carbon—
 Billings & Spencer Co., Hartford, Ct.

Tongs, Coal—
 Fanner Mfg. Co., Cleveland, O.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Reading Hardware Co., Reading, Pa.

Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Tongs, Crucible—
 Byron & Co., Inc., Detroit, Mich.

S. Obermayer Co., Cincinnati, O.

J. W. Paxson Co., 1021 N. Delaware Ave., Philadelphia, Pa.

Tongs, Granite Tool—
 Trow & Holden, Barre, Vt.

Tongs, Ice—
 Fanner Mfg. Co., Cleveland, O.

- Gifford-Wood Co., Arlington, Mass.
 Hay-Budden Mfg. Co., Brooklyn, N. Y.
 L. & I. J. White Co., Buffalo, N. Y.
- Tongs, Pipe—**
 American Well Works, Aurora, Ill.
 Jarecki Mfg. Co., Erie, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 D. Saunders' Sons, Yonkers, N. Y.
 Trimont Mfg. Co., Roxbury, Mass.
 Walworth Mfg. Co., Boston, Mass.
- Tongs, Pine Hanger—**
 Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- Tongs, Rail—**
 Hubbard & Co., Pittsburgh, Pa.
- Tongs, Railroad Tie—**
 Hubbard & Co., Pittsburgh, Pa.
- Tongs, Roofing—**
 Niagara Machine & Tool Works, Buffalo, N. Y.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
- Tongs, Skidding—**
 Peter Gerlach Co., Cleveland, O.
- Tongs, Special, for Machinists—**
 Barnes Tool Co., New Haven, Ct.
- Tongs, Wire—**
 Morgan Construction Co., Worcester, Mass.
- Tool Boxes, Chests, Grinders, Holders—**
 (See Boxes, Chests, Grinders, Holders.)
- Tool Makers' Clamps—**
 (See Clamps, Tool Makers')
- Tool Posts, Lathes—**
 (See Posts.)
- Tool Sets—**
 (See Sets, Screw Driver and Tool.)
- Tool Sets, Garden—**
 (See Sets, Garden Tool.)
- Tool Sets, Hollow Handle—**
 (See Sets, Tool, Hollow Handle.)
- Tool Steel Balls—**
 (See Balls, Steel.)
- Tools and Supplies, Factory, Railway, &c., Dealers in—**
 Irving Mfg. & Tool Co., 157 Chambers St., New York.
- Machinists' Supply Co., 16-18 So. Canal St., Chicago, Ill.**
- Niles-Bement-Pond Co., 111 Broadway, New York.**
- Joseph T. Ryerson & Son, 18-22 Milwaukee Ave., Chicago, Ill.**
- Scully Steel & Iron Co., 69 N. Halsted Co., Chicago, Ill.**
- C. C. Wormer Machinery Co., Detroit, Mich.**
- Walter A. Zelnicker Supply Co., St. Louis.**
- Tools, Automatic Boring—**
 Millers Falls Co., 28 Warren St., N. Y.
- Tools, Belt Fastener—**
 Crescent Belt Fastener Co., Inc., 143 E. 23d St., New York.
- E. B. Stimpson Co., 31 Spruce St., N. Y.**
- Tools, Boiler Makers', Butcher, &c.—**
 (See Boiler Makers', Butcher, &c.)
- Tools, Boring—**
 (See Boring Tools.)
- Tools, Brass Working—**
 Blake & Johnson Co., Waterbury, Ct.
 E. W. Bliss Co., Brooklyn, N. Y.
 Ferracute Machine Co., Bridgeton, N. J.
 E. J. Manville Machine Co., Waterbury, Ct.
- Niles-Bement-Pond Co., 111 Broadway, New York.**
- Pratt & Whitney Co., Hartford, Ct.**
- Tools, Burring—**
 Wells Bros. Co., Greenfield, Mass.
- Tools, Butchers—**
 John Chaffillon & Sons, 55 Cliff St., N. Y.
 Henry Daston & Sons, Philadelphia, Pa.
 Bernard Gloekler Co., Philadelphia, Pa.
 Landers, Frary & Clark, New Britain, Ct.
 L. & I. J. White Co., Buffalo, N. Y.
- Tools, Carbon—**
 Thos. L. Dickinson, 45 Vesey St., N. Y.
- Tools, Carriage Makers—**
 Chapin-Stephens Co., Pine Meadow, Ct.
- Tools, Coal Miners—**
 Hubbard & Co., Pittsburgh, Pa.
- Tools, Combination, Drill, Vise, Wire Stretcher, &c.—**
 Enterprise Foundry & Fence Co., Indianapolis, Ind.
- Tools, Compressed Air—**
 (See Compressed Air Tools.)
- Tools, Coopers—**
 L. & I. J. White Co., Buffalo, N. Y.
- Tools, Cutting Off—**
 (See Cutting-Off Tools.)
- Tools, Diamond Pointed—**
 American Emery Wheel Works, Providence, R. I.
 Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
 Est. of John Dickinson, 64 Nassau St., New York.
- Thos. L. Dickinson, 45 Vesey St., N. Y.**
- J. L. Osgood, Buffalo, N. Y.**
- Star Corundum Wheel Co., Detroit, Mich.**
- Sterling Emery Wheel Mfg. Co., Tiffin, O.**
- Superior Corundum Wheel Co., Waltham, Mass.**
- Vitrified Wheel Co., Westfield, Mass.**
- Tools, Diamond Shaping—**
 J. L. Osgood, Buffalo, N. Y.
- Tools, Dowel, Pin, &c.—**
 Chandler & Farquhar Co., Boston, Mass.
 M. Lanz & Sons, Pittsburgh, Pa.
- Tools, Farriers—**
 Heller Bros. Co., Newark, N. J.
- Tools, Filers' (Cleaners, Handles, Holders, &c.)—**
 Nicholson File Co., Providence, R. I.
- Tools, Floral—**
 American Fork & Hoe Co., Cleveland, O.
 Wrightsville Hardware Co., Wrightsville, Pa.
- Tools, Glaziers—**
 (See Knives Putty, Cutters Glass.)
- Tools, Granite Workers—**
 Trow & Holden, Barre, Vt.
- Tools, Hollow Adjustable—**
 Standard Tool Co., Cleveland, O.
- Tools, Ice—**
 (See Ice Harvesting Tools.)
- Tools, Jewelers' and Tool Makers—**
 Billings & Spencer Co., Hartford, Ct.
 Kilborn & Bishop Co., New Haven, Ct.
 Nicholson File Co., Providence, R. I.
 L. S. Starrett Co., Athol, Mass.
 Utica Drop Forge & Tool Co., Utica, N. Y.
- Tools, Knurling—**
 Billings & Spencer Co., Hartford, Ct.
 Goodell-Pratt Co., Greenfield, Mass.
 Pratt & Whitney Co., Hartford, Ct.

Tools, Lathe—
Armstrong Bros. Tool Co., 617 Austin Ave., Chicago, Ill.
Western Tool & Mfg. Co., Springfield, O.

Tools, Lumber—
Peter Gerlach Co., Cleveland, O.
Soule Steam Feed Works, Meridian, Miss.
Tools, Miners' Capping—
Tower & Lyon Co., 95 Chambers St., New York.

Tools, Miniature—
Smith & Hemenway Co., 108-110 Duane St., New York.

Tools, Mining, Picks, Wedges, Scrapers, Bars, &c.—

Iwan Bros., Streator, Ill.
Tools, Opticians—
Est. of John Dickinson, 64 Nassau St., New York.

Thos. L. Dickinson, 45 Vesey St., N. Y.
Tools, Paper Hangers—
Smith & Hemenway Co., 108-110 Duane St., New York.
Webster & Perks Tool Co., Springfield, O.

Tools, Parting—
Dame, Stoddard & Co., Boston, Mass.
James Swan Co., Seymour, Ct.
Tuck Mfg. Co., Brockton, Mass.

Tools, Paving Cutters—
Trow & Holden, Barre, Vt.

Tools, Planer and Shaper—
Armstrong Bros. Tool Co., 617-621 Austin Ave., Chicago, Ill.
Cincinnati Planer Co., Cincinnati, O.
O. K. Tool Holder Co., Shelton, Ct.
Powell Tool Co., Worcester, Mass.
Western Tool & Mfg. Co., Springfield, O.

Tools, Planer Gang—
Armstrong Bros. Tool Co., 104-124 N. Francisco Ave., Chicago, Ill.

Tools, Pneumatic—
(See Compressed Air Tools.)

Tools, Railroad Track—
Columbus Forge & Iron Co., Columbus, O.
Hubbard & Co., Pittsburgh, Pa.
Ingersoll-Rand Co., 11 Broadway, N. Y.
Stow Flexible Shaft Co., 28th and Callowhill Sts., Philadelphia, Pa.

Tools, Reloading, Cartridge
Ideal Mfg. Co., New Haven, Ct.
J. Stevens Arms & Tool Co., Chicopee Falls, Mass.

Tools, Roofers' and Pavers—
F. H. Evans, Brooklyn, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St., New York.

Tools, Saw—
E. C. Atkins & Co., Indianapolis, Ind.
Henry Diston & Sons, Philadelphia, Pa.
Kilborn & Bishop Co., New Haven, Ct.

Tools, Saw Makers—
E. C. Atkins & Co., Indianapolis, Ind.
Henry Diston & Sons, Philadelphia, Pa.
Kilborn & Bishop Co., New Haven, Ct.
National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.

Tools, Ship Carpenters—
L. & I. J. White Co., Buffalo, N. Y.

Tools, Slaters—
Belden Machine Co., New Haven, Ct.
Niagara Machine & Tool Works, Buffalo, N. Y.
Smith & Hemenway Co., 108-110 Duane St., New York.

Tools, Slotting—
Armstrong Bros. Tool Co., 104-124 N. Francisco Ave., Chicago, Ill.

Tools, Special—
(See Special Machinery.)

Tools, Thread Cutting—
S. W. Card Mfg. Co., Mansfield, Mass.

Tools, Thread Cutting Lathe
Armstrong Bros. Tool Co., 104-124 N. Francisco Ave., Chicago, Ill.
Billings & Spencer Co., Hartford, Ct.
Pratt & Whitney Co., Hartford, Ct.
Western Tool & Mfg. Co., Springfield, O.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Tools, Turners—
L. & I. J. White Co., Buffalo, N. Y.

Tools, Well—
(See Well Supplies and Tools.)

Tools, Wire Crating—
Oliver Machinery Co., Grand Rapids, Mich.

Tools, Wire Fence—
Kilborn & Bishop Co., New Haven, Ct.
Utica Drop Forge & Tool Co., Utica, N. Y.

Tools, Wood Engraving—
Dame, Stoddard & Co., Boston, Mass.

Tools, Wood Turners—
Buck Bros., Millbury, Mass.

Tops, Chimney—
Iwan Bros., Streator, Ill.

Lawrence Bros., Sterling, Ill.
Osborn Mfg. Co., Cleveland, O.
Tops, Malleable D-Handle—
Avery Stamping Co., Cleveland, O.
F. E. Konler & Co., Canton, O.
Piqua Handle & Mfg. Co., Piqua, O.
Sparks-Withington Co., Ltd., Jackson, Mich.

Torches, Gasoline and Oil—
Bridgeport Brass Co., 253 B'way, N. Y.
Gem Mfg. Co., Pittsburgh, Pa.
Hammer & Co., Branford, Ct.
Johnson Mfg. Co., Urbana, O.
Maple City Mfg. Co., Monmouth, Ill.
Schneider & Trenkamp Division, American Stove Co., Cleveland, O.

Torches, Lathe—
Gem Mfg. Co., Pittsburgh, Pa.

Tote Boxes—
(See Boxes, Tote.)

Towers, Cooling—
(See Cooling Towers.)

Towers, Tank—
W. E. Caldwell Co., Louisville, Ky.
Forest City Steel & Iron Co., Cleveland.
Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.
Mast-Foos Co., Springfield, O.
R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
Virginia Bridge & Iron Co., Roanoke, Va.

Towers, Water—
Kenwood Bridge Co., First National Bank Bldg., Chicago, Ill.
W. N. Kratzer & Co., Pittsburgh, Pa.
R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.

Toy Banks—
(See Toy Savings Banks.)

Toy Barrows, Wheel—
Kirk-Latty Mfg. Co., Cleveland, O.

Toy Beds—
Arcade Mfg. Co., Freeport, Ill.

- Kilbourne Mfg. Co., Troy, N. Y.
- Toy Carts, Carriages and Wagons—**
Columbia Grey Iron Co., Columbia, Pa.
- Toy Coffee Mills—**
Arcade Mfg. Co., Freeport, Ill.
- Toy Engines and Cars—**
Columbia Grey Iron Co., Columbia, Pa.
Hubley Mfg. Co., Lancaster, Pa.
- Toy Fire Apparatus—**
Hubley Mfg. Co., Lancaster, Pa.
- Toy Hammers—**
Columbia Grey Iron Co., Columbia, Pa.
- Toy Hatchets—**
Arcade Mfg. Co., Freeport, Ill.
Columbia Grey Iron Co., Columbia, Pa.
- Toy Lawn Mowers—**
Arcade Mfg. Co., Freeport, Ill.
- Toy Locomotives and Trains—**
Hubley Mfg. Co., Lancaster, Pa.
- Toy Pistols, Cap—**
Fanner Mfg. Co., Cleveland, O.
- Toy Pumps—**
Arcade Mfg. Co., Freeport, Ill.
- Toy Rakes—**
Columbia Grey Iron Co., Columbia, Pa.
- Toy Sad Irons—**
Arcade Mfg. Co., Freeport, Ill.
- Toy Savings Banks—**
Columbia Grey Iron Co., Columbia, Pa.
Hubley Mfg. Co., Lancaster, Pa.
Reading Hardware Co., Reading, Pa.
- Toy Seales—**
Arcade Mfg. Co., Freeport, Ill.
- Toy Shovels and Spades—**
Columbia Grey Iron Co., Columbia, Pa.
- Toy Stoves—**
Arcade Mfg. Co., Freeport, Ill.
- Toy Tools—**
Arcade Mfg. Co., Freeport, Ill.
- Toy Iron and Steel—**
Arcade Mfg. Co., Freeport, Ill.
- Toy Guns and Steel—**
Columbia Grey Iron Co., Columbia, Pa.
Hubley Mfg. Co., Lancaster, Pa.
Rollman Mfg. Co., Mt. Joy, Pa.
Susquehanna Casting Co., Wrightsville, Pa.
- Trace Chains—**
(See Chains, Trace.)
- Trace Lap Loops—**
(See Links, Repair and Lap.)
- Trace Ropes—**
Beecher Draught Spring Co., New Haven, Ct.
- Tracing Wheels—**
(See Wheels, Tracing.)
- Track Bolts, Gauges—**
(See Bolts, Gauges.)
- Track, Cast Iron, Industrial—**
Ernst Wiener Co., Broad and Beaver Sts., New York.
- Track, Door Hanger—**
(See Rail, Door.)
- Track, Industrial—**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Byram & Co. Inc., Detroit, Mich.
Indianapolis Switch & Frog Co., Springfield, O.
Arthur Koppel Co., Pittsburgh, Pa.
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Northern Engineering Works, Detroit, Mich.
- Ernst Wiener Co., Broad and Beaver Sts., New York.
- Yale & Towne Mfg. Co., 9 Murray St., New York.
- Track, Overhead Carrying—**
Allith Mfg. Co., 122-124 S. Green St., Chicago, Ill.
- Atlas Car & Mfg. Co., Cleveland, O.
- Brown Hoisting Machinery Co., Cleveland, O.
- Case Mfg. Co., Columbus, O.
- Bernard Gloekler Co., Pittsburgh, Pa.
- Ed. Harrington, Son & Co., Inc., Philadelphia, Pa.
- Interstate Engineering Co., Bedford, O.
- McCabe Hanger Mfg. Co., 425-427 W. 25th St., New York.
- F. E. Myers & Bro., Ashland, O.
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Niles-Bement-Pond Co., 111 Broadway, New York.
- Northern Engineering Works, Detroit, Mich.
- Reading Crane & Hoist Works, Reading, Pa.
- Wm. B. Scaife & Sons Co., Pittsburgh, Pa.
- J. G. Speidel, Reading, Pa.
- Whiting Foundry Equipment Co., Harvey, Ill.
- Yale & Towne Mfg. Co., 9 Murray St., New York.
- Track, Portable—**
Indianapolis Switch & Frog Co., Springfield, O.
- Arthur Koppel Co., Pittsburgh, Pa.
- New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
- Northern Engineering Works, Detroit, Mich.
- Ernst Wiener Co., Broad and Beaver Sts., New York.
- Yale & Towne Mfg. Co., 9 Murray St., New York.
- Trade Checks—**
(See Checks, Trade.)
- Trainers, Flower—**
Dufur & Co., Baltimore, Md.
- Trammels and Trammel Points—**
Henry Diaston & Sons, Philadelphia, Pa.
Stanley Rule & Level Co., New Britain, Ct.
L. S. Starrett Co., Athol, Mass.
Tower & Lyon Co., 95 Chambers St., New York.
- Tramways—**
(See Track, Overhead Carrying.)
- Tramways, Bridge, Revolving—**
Dodge Coal Storage Co., Hunting Park Ave. and P. & R. Railway, Philadelphia, Pa.
- Yale & Towne Mfg. Co., 9 Murray St., New York.
- Tramways, Wire Rope—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis.
Brown Hoisting Machinery Co., Cleveland, O.

Jeffrey Mfg. Co., Columbus, O.
A. Leachen & Sons Rope Co., St. Louis.
Lidgerwood Mfg. Co., 96 Liberty St., N. Y.
New Jersey Foundry & Machine Co., 9-15
Murray St., New York.
Whiting Foundry Equipment Co., Harvey,
Ill.
Yale & Towne Mfg. Co., 9 Murray St.,
New York.

Transfer Tables, Railroad—
Brown Hoisting Machinery Co., Cleve-
land, O.
Cleveland Crane & Car Co., Wickliffe, O.
Cleveland Punch & Shear Works Co.,
Cleveland, O.
Industrial Works, Bay City, Mich.
Interstate Engineering Co., Bedford, O.
Morgan Engineering Co., Alliance, O.
Northern Engineering Works, Detroit,
Mich.

Transformers, Electric—
Crocker-Wheeler Co., Ampere, N. J.
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Transits—
Athol Machine Co., Athol, Mass.
Kueffel & Esser Co., 127 Fulton St., N. Y.
L. S. Starrett Co., Athol, Mass.

Transmission Machinery.
Electric Power—
General Electric Co., Schenectady, N. Y.
Westinghouse Electric & Mfg. Co., Pitts-
burgh, Pa.

Transmission Rope—
(See Rope Transmission.)

Tranrom Catches, Centers,
Lifters—
(See Catches, Centers, Lifters.)

Trap Door Hinges—
(See Hinges, Trap Door.)

Trap Wrenches—
(See Wrenches, Trap.)

Traps, Crab—
Kilbourne Mfg. Co., Troy, N. Y.

Traps, Fly—
Parker Wire Goods Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.

Traps, Game—
Oneida Community, Kenwood, N. Y.
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.
Evan L. Reed Mfg. Co., Sterling, Ill.

Traps, Rat and Mouse—
Burditt & Williams Co., Boston, Mass.
Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.

Dufur & Co., Baltimore, Md.
Estey Wire Works Co., 59 Fulton St.,
New York.

Kilbourne Mfg. Co., Troy, N. Y.
Ludlow-Saylor Wire Co., St. Louis, Mo.
Oneida Community, Kenwood, N. Y.
Parker Wire Goods Co., Worcester, Mass.
Evan L. Reed Mfg. Co., Sterling, Ill.
Smith & Egge Mfg. Co., Bridgeport, Ct.
Wire Goods Co., Worcester, Mass.
Worcester Wire Novelty Co., Canton, O.

Traps, Sewer—
Bethlehem Foundry & Machine Co., So.
Bethlehem, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
National Tube Company, Pittsburgh, Pa.

Traps, Steam—
American Blower Co., Detroit, Mich.
Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
Hayley Mfg. Co., Milwaukee, Wis.
Boston Blower Co., Hyde Park, Mass.
Julian D'Este Co., Boston, Mass.
Eymon-Evans Mfg. Co., 1507 Clearfield St.,
Philadelphia, Pa.
Jenkins Bros., 71 John St., New York.
John T. Lindstrom, Allentown, Pa.
Manning, Maxwell & Moore, Inc., 85-89
Liberty St., New York.

Mason Regulator Co., Boston, Mass.
National Tube Company, Pittsburgh, Pa.
W. H. Nicholson & Co., Wilkes-Barre, Pa.
Frank L. Patterson & Co., 26 Cortlandt
St., New York.
B. F. Sturtevant Co., Boston, Mass.
Walworth Mfg. Co., Boston, Mass.

Travelers, Boom and Deck—
W. & J. Tiebout, 118 Chambers St., N. Y.
Tray Fittings, Trunk—
J. H. Sessions & Son, Bristol, Ct.

Trays, Card, Children's,
Crumb, Spoon, &c., Silver
and Silver Plated—
International Silver Co., Meriden, Ct.

Trays, Casting—
Byram & Co., Detroit, Mich.

Trays, Coin, Self Counting—
Lamson Consolidated S. S. Co., Boston,
Mass.

Trays, Electric Lamp—
W. J. Clark Co., Salem, O.

Trays, Meat—
Stuart & Peterson Co., Burlington, N. J.

Trays, Metal—
Riverside Metal Co., Riverside, N. J.

Trays, Shop—
(See Boxes and Trays, Shop.)

Trays, Soap, Rubber—
Springfield Tire & Rubber Co., Spring-
field, O.

Trays, Steaming—
W. J. Clark Co., Salem, O.

Trays, Wheelbarrow—
W. J. Clark Co., Salem, O.

Trays, Wire, Paper and
Letter—

Andrews Wire & Iron Works, Rockford,
Ill.

Kilbourne Mfg. Co., Troy, N. Y.
Wire Goods Co., Worcester, Mass.

Treads, Stair and Step.
Rubber—

New York Belting & Packing Co., 91-93
Chambers St., New York.

Treads, Stair, Iron—
S. Cheney & Son, Manlius, N. Y.

(See also Plates, Brass Step.)
Tree Guards, Labels—
(See Guards, Labels.)

Trellises, Wire—
Anchor Post Iron Works, 42 Park Row,
New York.

Andrews Wire & Iron Works, Rockford,
Ill.

Buffalo Wire Works Co., Buffalo, N. Y.
Cyclone Fence Co., Waukegan, Ill.

Edward Darby & Sons, 233-235 Arch St.,
Philadelphia, Pa.

Dufur & Co., Baltimore, Md.
Estey Wire Works Co., 59 Fulton St.,
New York.

Forest City Steel & Iron Co., Cleveland, O.
Howard & Morse, 45 Fulton St., N. Y.

- Ludlow-Saylor Wire Co., St. Louis, Mo.
 Nimmo Fence & Wire Works Co., Norwood, O.
 W. S. Tyler Co., Cleveland, O.
 Wright Wire Co., Worcester, Mass.
Trevets—
 Wrightsville Hardware Co., Wrightsville, Pa.
Triangles, Steel—
 Brown & Sharpe Mfg. Co., Providence, R. I.
 Henry Disston & Sons, Philadelphia, Pa.
 Keuffel & Esser Co., 127 Fulton St., N. Y.
Triers, Butter and Cheese—
 American Cutlery Co., Chicago, Ill.
 Dame, Stoddard & Co., Boston, Mass.
 Peck, Stow & Wilcox Co., 27 Murray St., New York.
Trimmers, Bent and Straight—
 (See Shears and Scissors.)
Trimmers, Bolt Head—
 E. W. Bliss Co., Brooklyn, N. Y.
 Waterbury Parrel Foundry & Machine Co., Waterbury Ct.
Trimmers, Brush—
 Coldwell Lawn Mower Co., Newburgh, N. Y.
Trimmers, Lamp—
 Bridgeport Brass Co., 233 B'way, N. Y.
 H. B. Ives Co., New Haven, Ct.
Trimmers, Lumber—
 Lane Mfg. Co., Montpelier, Vt.
Trimmers, Spoke—
 Millers Falls Co., 28 Warren St., N. Y.
Trimmers' Tacks—
 (See Tacks, Trimmers.)
Trimmers' Wall Paper—
 Webster & Perks Tool Co., Springfield, O.
Trimmers, Wood—
 Fox Machine Co., Grand Rapids, Mich.
 Lane Mfg. Co., Montpelier, Vt.
 Oliver Machinery Co., Grand Rapids, Mich.
Trimming and Mounts, Metal Bedsteads—
 American Ring Co., Waterbury, Ct.
Trimming, Bag, Box, Case, &c.—
 R. C. Jenkinson & Co., Newark, N. J.
Trimming, Boiler and Engine—
 Wm. Powell Co., Cincinnati, O.
Trimming, Car, Brass—
 Delaware Marine Supply Mfg. Co., Wilmington, Del.
 H. B. Ives Co., New Haven, Ct.
 (See also Locks and Trimmings, Car.)
Trimming, Curtain Pole—
 American Ring Co., Waterbury, Ct.
Trimming, Fishing Rods—
 Horton Mfg. Co., Bristol, Ct.
Trimming, Furniture—
 American Ring Co., Waterbury, Ct.
Trimming, Halter—
 Covert Mfg. Co., Troy, N. Y.
 North & Judd Mfg. Co., New Britain, Ct.
Trimming, Hame—
 North & Judd Mfg. Co., New Britain, Ct.
Trimming, Overall—
 Spencer Wire Co., Worcester, Mass.
Trimming, Shaft Leather—
 McKinnon Dash Co., Buffalo, N. Y.
Trimming, Stove—
 American Tube & Stamping Co., Bridgeport, Ct.
- Fanner Mfg. Co., Cleveland, O.
 Mathews Mfg. Co., Worcester, Mass.
 H. A. Matthews Mfg. Co., Seymour, Ct.
 Worcester Pressed Steel Co., Worcester, Mass.
Trimming, Strap—
 Covert Mfg. Co., Troy, N. Y.
Trimming, Tinner's—
 (See Tinner's Trimmings.)
Trimming, Trunk—
 R. C. Jenkinson & Co., Newark, N. J.
 J. H. Sessions & Son, Bristol, Ct.
 E. B. Stimpson Co., 31 Spruce St., N. Y.
Trolley Carriages, Hoists, Insulators, Poles—
 (See Carriages, Hoists, Insulators, Poles.)
Trolley Materials, Electrical—
 Keystone Drop Forge Works, Chester, Pa.
 Kilborn & Bishop Co., New Haven, Ct.
 Ohio Brass Co., Mansfield, O.
Trolley Wire—
 (See Wires, Electrical.)
Trolleys—
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Franklin Moore Co., Winsted, Ct.
 Northern Engineering Works, Detroit, Mich.
 Reading Crane & Hoist Works, Reading, Pa.
 Yale & Towne Mfg. Co., 9 Murray St., New York.
Trolleys, Double Bearing Antifriction—
 Yale & Towne Mfg. Co., 9 Murray St., New York.
Trolleys, Electric Conveying—
 Browning Engineering Co., Cleveland, O.
 Cleveland Crane & Car Co., Wickliffe, O.
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Interstate Engineering Co., Bedford, O.
 Northern Engineering Works, Detroit, Mich.
 Yale & Towne Mfg. Co., 9 Murray St., New York.
Trolleys, I-Beam—
 Browning Engineering Co., Cleveland, O.
 Brown Hoisting Machinery Co., Cleveland, O.
 Chisholm & Moore Mfg. Co., Cleveland, O.
 Cleveland Crane & Car Co., Wickliffe, O.
 General Pneumatic Tool Co., Montour Falls, N. Y.
 Interstate Engineering Co., Bedford, O.
 New Jersey Foundry & Machine Co., 9-15 Murray St., New York.
 Northern Engineering Works, Detroit, Mich.
 Pawling & Harnischfeger, Milwaukee, Wis.
 Reading Crane & Hoist Works, Reading, Pa.
 Schuchardt & Schutte, 136 Liberty St., New York.
 J. G. Spedel, Reading, Pa.
 Yale & Towne Mfg. Co., 9 Murray St., New York.
Trolleys, Plain Rail—
 Northern Engineering Works, Detroit, Mich.
 Reading Crane & Hoist Works, Reading, Pa.
 J. G. Spedel, Reading, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Trolleys, Pneumatic—
General Pneumatic Tool Co., Montour Falls, N. Y.

Trolleys, Roller Bearing—
Bancroft & Co., Philadelphia, Pa.

General Pneumatic Tool Co., Montour Falls, N. Y.

Northern Engineering Works, Detroit, Mich.

Reading Crane & Hoist Works, Reading, Pa.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Trolleys, Street Railway—
Atlas Car & Mfg. Co., Cleveland, O.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

General Electric Co., Schenectady, N. Y.

H. D. Nuttall Co., Pittsburgh, Pa.

Troughs, Cattle—
Avery Stamping Co., Cleveland, O.

W. J. Clark Co., Salem, O.

Troughs, Conveyor—
H. W. Caldwell & Son Co., Western Ave. and 17th St., Chicago, Ill.

Hendrick Mfg. Co., Carbondale, Pa.

Interstate Engineering Co., Bedford, O.

Link-Belt Co., Philadelphia, Pa.

Troughs, Dipping—
W. J. Clark Co., Salem, O.

Troughs, Eave—
(See Eave Troughs.)

Troughs, Kneading and Meat—

Stuart & Peterson Co., Burlington, N. J.

Troughs, Pig—
S. Cheney & Son, Manlius, N. Y.

Troughs, Poultry—
Stuart & Peterson Co., Burlington, N. J.

Trousers, Guards, Hangers, Stretchers—
(See Guards, Hangers, Stretchers.)

Trowels, Brick, Plastering, &c.—

E. C. Atkins & Co., Indianapolis, Ind.

Geo. H. Bishop & Co., Cincinnati, O.

Henry Disston & Sons, Philadelphia, Pa.

Griffin Mfg. Co., Erie, Pa.

National Saw Co., Newark, N. J.

Wiebusch & Hilger, Ltd., 9 Murray St., New York.

Trowels, Cementers—
Henry Disston & Sons, Philadelphia, Pa.

Trowels, Coke—
Henry Disston & Sons, Philadelphia, Pa.

Trowels, Corner—
Henry Disston & Sons, Philadelphia, Pa.

Trowels, Garden—
Avery Stamping Co., Cleveland, O.

Henry Disston & Sons, Philadelphia, Pa.

F. E. Kohler & Co., Canton, O.

Landers, Frary & Clark, New Britain, Ct.

Peck, Stow & Wilcox Co., 27 Murray St., New York.

Truck Casters, Wheels—
(See Casters, Wheels.)

Truck Wheels, Rubber Covered—
(See Wheels, Rubber Tired.)

Trucks, Bag—
Boston & Lockport Block Co., Boston.

Chase Foundry & Mfg. Co., Columbus, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Warsaw Elevator Co., Warsaw, N. Y.

Wrightsville Hardware Co., Wrightsville, Pa.

Trucks, Baggage and Express—
Chase Foundry & Mfg. Co., Columbus, O.

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Bar Iron, Pipe, Rail, &c.—
Chase Foundry & Mfg. Co., Columbus, O.

Trucks, Barrel—
Atlas Car & Mfg. Co., Cleveland, O.

Bateman Mfg. Co., Grenloch, N. J.

Boston & Lockport Block Co., Boston.

Chase Foundry & Mfg. Co., Columbus, O.

Geo. P. Clark Co., Windsor Locks, Ct.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

McKinney Mfg. Co., Allegheny, Pa.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst & Co., Norfolk, Va.

Trucks, Basket—
Burlington Basket Co., Burlington, Ia.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Steel Basket Co., Cedar Rapids, Ia.

Warsaw Elevator Co., Warsaw, N. Y.

Trucks, Bottlers—
Chase Foundry & Mfg. Co., Columbus, O.

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Box and Case—
Chase Foundry & Mfg. Co., Columbus, O.

City Forge & Iron Works, Dayton, O.

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Brick—
Atlas Car & Mfg. Co., Cleveland, O.

Boston & Lockport Block Co., Boston.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Northern Engineering Works, Detroit, Mich.

Warsaw Elevator Co., Warsaw, N. Y.

Youngstown Car Mfg. Co., Youngstown, O.

Trucks, Butchers—
Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Car—
American Steel Foundries, 42 Broadway, New York.

Youngstown Car Mfg. Co., Youngstown, O.

Trucks, Coal—
Geo. P. Clark Co., Windsor Locks, Ct.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Northern Engineering Works, Detroit, Mich.

Youngstown Car Mfg. Co., Youngstown, O.

Trucks, Core Oven—
Northern Engineering Works, Detroit, Mich.

Trucks, Cotton—
Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Crate—
Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Dry Goods—
Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Dye House—
Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Dry Kiln—
American Blower Co., Detroit, Mich.

Atlas Car & Mfg. Co., Cleveland, O.

Bayley Mfg. Co., Milwaukee, Wis.

Boston Blower Co., Hyde Park, Mass.

Chase Foundry & Mfg. Co., Columbus, O.

Warsaw Elevator Co., Warsaw, N. Y.

Wickes Bros., Saginaw, Mich.

Wright Wire Co., Worcester, Mass.

Youngstown Car Mfg. Co., Youngstown, O.

Trucks, Factory and Mill—

Burlington Basket Co., Burlington, Ia.
 Chase Foundry & Mfg. Co., Columbus, O.
 City Forge & Iron Works, Dayton, O.
 Geo. P. Clark Co., Windsor Locks, Ct.
 Fox Machine Co., Grand Rapids, Mich.
 Terrell's Equipment Co., Grand Rapids, Mich.

Youngstown Car Mfg. Co., Youngstown, O.

Trucks, Flushing, for**Carrying Hose—**

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Foundry—

Atlas Car & Mfg. Co., Cleveland, O.
 Boston & Lockport Block Co., Boston.
 Byram & Co., Detroit, Mich.
 Chase Foundry & Mfg. Co., Columbus, O.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
 Northern Engineering Works, Detroit, Mich.

S. Obermayer Co., Cincinnati, O.
 J. W. Paxson Co., Philadelphia, Pa.
 J. D. Smith Foundry Supply Co., Cleveland, O.

Warsaw Elevator Co., Warsaw, N. Y.
 Whiting Foundry Equipment Co., Harvey, Ill.

Youngstown Car Mfg. Co., Youngstown, O.

Trucks, Furniture—

Chase Foundry & Mfg. Co., Columbus, O.

Trucks, Garbage—

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Hand, Third**Wheel—**

Ajax Foundry & Machine Co., 136 Liberty St., New York.

Trucks, Hose, Street Flush-**ing—**

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Hospital—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Laundry—

Burlington Basket Co., Burlington, Ia.

Geo. P. Clark Co., Windsor Locks, Ct.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Trucks, Log—

Lane Mfg. Co., Montpelier, Vt.

Trucks, Mill and Lumber—

City Forge & Iron Works, Dayton, O.

Trucks, Mold Drying and**Annealing—**

(See Cars, Mold Drying and Annealing.)

Youngstown Car Mfg. Co., Youngstown, O.

Trucks, Office or Bank—

Boston & Lockport Block Co., Boston.

Geo. P. Clark Co., Windsor Locks, Ct.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Trucks, Packing House—

Chase Foundry & Mfg. Co., Columbus, O.

Trucks, Paper Mill—

Chase Foundry & Mfg. Co., Columbus, O.

Trucks, Paper Roll—

Boston & Lockport Block Co., Boston.

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Platform—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Printers' Form—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Sheet Metal—

Chase Foundry & Mfg. Co., Columbus, O.

Trucks, Steel Car—

American Steel Foundries, 42 Broadway, New York.

Trucks, Store, Warehouse,**&c.—**

Atlas Car & Mfg. Co., Cleveland, O.

Boston & Lockport Block Co., Boston.

Burlington Basket Co., Burlington, Ia.

Chase Foundry & Mfg. Co., Columbus, O.

City Forge & Iron Works, Dayton, O.

Geo. P. Clark Co., Windsor Locks, Ct.

W. J. Clark Co., Salem, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

McKinney Mfg. Co., Allegheny, Pa.

Syracuse Chilled Plow Co., Syracuse, N. Y.

Warsaw Elevator Co., Warsaw, N. Y.

R. W. Whitehurst Co., Norfolk, Va.

Youngstown Car Mfg. Co., Youngstown, O.

Trucks, Stove—

Arcade Mfg. Co., Freeport, Ill.

Boston & Lockport Block Co., Boston.

Chase Foundry & Mfg. Co., Columbus, O.

Geo. P. Clark Co., Windsor Locks, Ct.

S. M. Howes Co., Boston, Mass.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

C. S. Mersick & Co., New Haven, Ct.

Warsaw Elevator Co., Warsaw, N. Y.

Trucks, Tannery—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Timber—

E. C. Atkins & Co., Indianapolis, Ind.

Atlas Car & Mfg. Co., Cleveland, O.

Bayley Mfg. Co., Milwaukee, Wis.

Boston & Lockport Block Co., Boston.

Chase Foundry & Mfg. Co., Columbus, O.

City Forge & Iron Works, Dayton, O.

Geo. P. Clark Co., Windsor Locks, Ct.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Lane Mfg. Co., Montpelier, Vt.

Warsaw Elevator Co., Warsaw, N. Y.

Trucks, Tin Plate—

Boston & Lockport Block Co., Boston.

Geo. P. Clark Co., Windsor Locks, Ct.

Youngstown Car Mfg. Co., Youngstown, O.

Trucks, Tip—

Geo. P. Clark Co., Windsor Locks, Ct.

Trucks, Transfer Box—

Terrell's Equipment Co., Grand Rapids, Mich.

Trucks, Wire Mill—

Boston & Lockport Block Co., Boston.

Morgan Construction Co., Worcester, Mass.

Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Youngstown Car Mfg. Co., Youngstown, O.

(See also Cars, Wire.)

Trumpets, Firemen's, Silver**Plated—**

International Silver Co., Meriden, Ct.

Trunk Carriers, Clamps, &c.

(See Carriers, Clamps, &c.)

Trunk Hardware—

(See Corners, Clamps, Locks, &c.)

Trunk Makers' Tools—

George A. Ohl & Co., Newark, N. J.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Stow Flexible Shaft Co., 26th & Callowhill Sts., Philadelphia, Pa.

Trunks, Willow—

Burlington Basket Co., Burlington, Ia.

Truss Rods—

(See Bolts, Bridge and Roof.)

Trusses, Steel Building and**Bridge—**

Carnegie Steel Co., Pittsburgh, Pa.

Tryers, Butter and Cheese—

Dame, Stoddard & Co., Boston, Mass.

Try Squares—

(See Squares, Try.)

Tub Ears, Handles, Hoops—

(See Ears, Handles, Hoops.)

Tub Machinery and Tools—
Peter Gerlach Co., Cleveland, O.

Tube Cutters, Expanders, &c.—

(See Cutters, Expanders, &c.)

Tube Hole Punches—

(See Punches, Hand and Tube Hole.)

Tube Works Equipment—
United Engineering & Foundry Co.,
Pittsburgh, Pa.

Wellman-Seaver-Morgan Co., Cleveland, O.

Tubes and Parts, Last—
Boston Pressed Metal Co., Worcester,
Mass.

Tubes, Boiler—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

E. Keeler Co., Williamsport, Pa.

National Tube Co., Pittsburgh, Pa.

Thomas Prosser & Son, 26 Platt St., N.Y.

Reliance Tube Co., Ltd., Pittsburgh, Pa.

MERCHANTS.

Bourne-Fuller Co., Cleveland, O.

Eagle Metal & Supply Co., Brooklyn,

N. Y.

General-Supply-Iron-Steel & Rail Co.,

Cincinnati, O.

C. B. Houston & Co., Girard Bldg.,

Philadelphia, Pa.

McDowell & Co., Allegheny, Pa.

Pierson & Co., 29 Broadway, New York.

Joseph T. Ryerson & Son, 18-22 Milwau-

kee Ave., Chicago, Ill.

Scully Steel & Iron Co., 69 N. Halsted

St., Chicago, Ill.

Tubes, Boiler, Charcoal

Iron—

Reliance Tube Co., Ltd., Pittsburgh, Pa.

Tubes, Boiler, Iron—

National Tube Co., Pittsburgh, Pa.

Tubes, Boiler, Steel—

Reliance Tube Co., Ltd., Pittsburgh, Pa.

Tubes, Boiler, Wrought

Steel—

Pierson & Co., 29 Broadway, N. Y.

Tubes, Brass and Copper

Condenser—

Bridgeport Brass Co., 253 B'way, N. Y.

U. T. Hungerford Brass & Copper Co.,

497-505 Pearl St., New York.

Arthur T. Rutter & Co., 256 Broadway,

New York.

Tubes, Combination, Plati-

num—

J. Bishop & Co., Malvern, Pa.

Tubes, Exhaust—

Standard Welding Co., Cleveland, O.

Tubes, Flexible Steel—

T. R. Almond Mfg. Co., Ashburnham,

Mass.

Tubes, Glass—

Ashton Valve Co., Boston, Mass.

Tubes, Gold Plated—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Tubes, Grain Drill, Wire—

American Steel & Wire Co., The Rookery,

Chicago, Ill.

Tubes, Hydraulic Seamless

Steel—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

John S. Leng's Son & Co., 33 Murray

St., New York.

National Tube Co., Pittsburgh, Pa.

Thomas Prosser & Son, 26 Platt St., N.Y.

Tubes, Platinum Plated—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Tubes, Pneumatic Service—

Lamson Consolidated S. S. Co., Boston,

Mass.

Tubes, Punch—

Eyclett Tool Co., Boston, Mass.

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Tubes, Speaking—

W. R. Ostrander & Co., 22 Dey St., N. Y.

Tubes, Wringer Roll—

New York Belting & Packing Co., 91-93

Chambers St., New York.

Tubing, Aluminum—

Aluminum Co., of America, Pittsburgh, Pa.

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Arthur T. Rutter & Co., 256 Broadway,

New York.

Tubing, Atomizer—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Tubing, Automobile—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

National Tube Co., Pittsburgh, Pa.

Standard Welding Co., Cleveland, O.

Tubing, Bicycle—

American Tube & Stamping Co., Bridge-

port, Ct.

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

John S. Leng's Son & Co., 33 Murray St.,

New York.

National Tube Co., Pittsburgh, Pa.

Tubing, Brass and Copper—

American Tube & Stamping Co., Bridge-

port, Ct.

Bridgeport Brass Co., 253 B'way, N. Y.

U. T. Hungerford Brass & Copper Co.,

497-505 Pearl St., New York.

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Arthur T. Rutter & Co., 256 Broadway,

New York.

Seymour Mfg. Co., Seymour, Ct.

Waterbury Brass Co., Waterbury, Ct.

Tubing, Bronze—

Bridgeport Brass Co., 253 B'way, N. Y.

U. T. Hungerford Brass & Copper Co.,

497-505 Pearl St., New York.

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Arthur T. Rutter & Co., 256 Broadway,

New York.

Seymour Mfg. Co., Seymour, Ct.

Waterbury Brass Co., Waterbury, Ct.

Tubing, Cold Drawn,

Square—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Tubing, German Silver—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Arthur T. Rutter & Co., 256 Broadway,

New York.

Seymour Mfg. Co., Seymour, Ct.

Tubing, Gold—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

Tubing, High Carbon Steel—

Ellwood Ivins Tube Works, Oak Lane

Sta., Philadelphia, Pa.

- Tubing, Hypodermic Needle—**
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
- Tubing, Nickel—**
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
- Tubing, Platinum—**
J. Bishop & Co., Malvern, Pa.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
- Tubing, Pump, Steel—**
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
- Tubing, Regular and Special Shapes—**
Boston Pressed Metal Co., Worcester, Mass.
- Tubing, Rubber—**
H. O. Canfield Co., Bridgeport, Ct.
New York Belting & Packing Co., 91-93 Chambers St., New York.
- Tubing, Seamless Bronze—**
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.
- Tubing, Seamless Lead and Tin—**
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
- Tubing, Seamless, Plants for—**
Hugh L. Thompson, Waterbury, Ct.
- Tubing, Seamless Steel—**
American Tube & Stamping Co., Bridgeport, Ct.
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
La Belle Iron Works, Steubenville, O.
John S. Leng's Son & Co., 33 Murray St., New York.
National Tube Co., Pittsburgh, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.
Standard Welding Co., Cleveland, O.
Whitlock Coil Pipe Co., Hartford, Ct.
- Tubing, Seamless Tool Steel—**
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
Arthur T. Rutter & Co., 256 Broadway, New York.
- Tubing, Silver—**
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
- Tubing, Structural, Butted and Beveled—**
Elyria Iron & Steel Co., Elyria, O.
- Tubing, Tool Steel, for Drills—**
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
- Tubing, Well—**
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.
National Tube Co., Pittsburgh, Pa.
- Tubing, Zinc—**
Bridgeport Brass Co., 253 B'way, N. Y.
Waterbury Brass Co., Waterbury, Ct.
- Tubs, Acid—**
(See Acid Tanks, Tubs, &c.)
- Tubs, Bath—**
(See Bathtubs.)
- Tubs, Factory—**
W. J. Clark Co., Salem, O.
- Tubs, Hoisting—**
W. J. Clark Co., Salem, O.
C. W. Hunt Co., West New Brighton, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Steel Basket Co., Cedar Rapids, Ia.
Wellman-Seaver-Morgan Co., Cleveland.
Ernst Wiener Co., Broad and Beaver Sts., New York.
- Tubs, Ice Cream Packing—**
Alaska Freezer Co., Winchendon, Mass.
- Tubs, Laundry—**
Humphreys Mfg. Co., Mansfield, O.
- Tubs, Wire Cleaning—**
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Tabular or Split Riveters—**
(See Riveters for Tabular, &c.)
- Tumbling Mills—**
(See Barrels, Tumbling.)
- Tungsten—**
Geo. G. Blackwell, Sons & Co., Ltd., Liverpool, England.
Roessler & Hasslacher Chemical Co., 100 William St., New York.
- Turbine Water Wheels—**
(See Water Wheels.)
- Turbines, Steam—**
De Laval Steam Turbine Co., Trenton, N. J.
General Electric Co., Schenectady, N. Y.
B. F. Sturtevant Co., Boston, Mass.
Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.
- Tureens, Silver and Silver Plated—**
International Silver Co., Meriden, Ct.
- Turf Edgers—**
(See Edgers, Turf.)
- Turnbuckle Tapping Machines—**
(See Tapping Machines, Turnbuckle.)
- Turnbuckles—**
American Bridge Co. of New York, 42 Broadway, New York.
American Iron & Steel Mfg. Co., Lebanon, Pa.
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Cleveland City Forge & Iron Co., Cleveland, O.
Columbus Forge & Iron Co., Columbus, O.
Detroit Screw Works, Detroit, Mich.
Grabler Mfg. Co., Cleveland, O.
Graham Nut Co., Pittsburgh, Pa.
Samuel Hall's Sons, 229-233 W. 10th St., New York.
W. H. Haskell Mfg. Co., Pawtucket, R. I.
M. Lanz & Sons, Pittsburgh, Pa.
A. Leschen & Sons Rope Co., St. Louis, Mo.
Merrill Bros., Brooklyn, N. Y.
Pittsburgh Mfg. Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
Rhode Island Tool Co., Providence, R. I.
St. Louis Screw Co., St. Louis, Mo.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.
Strieby & Foote Co., Newark, N. J.
Unson Nut Co., Cleveland, O.
Williamsport Wire Rope Co., Williamsport, Pa.
- Turnbuckles, Brass and Galvanized—**
Thomas Laughlin Co., Portland, Me.
W. & J. Tietout, 12 Chambers St., N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Turnbuckles, Screen Door—
National Mfg. Co., Sterling, Ill.

Turners, Cake—
Arcade Mfg. Co., Freeport, Ill.
Kilbourne Mfg. Co., Troy, N. Y.
Landers, Frary & Clark, New Britain, Ct.
Turners, Paper Calendar
Roll—

Est. of John Dickinson, 64 Nassau St., New York.

Turning and Boring Mills—
(See Mills, Boring and Turning.)

Turning and Fellow Webs—
(See Webs, Turning, Fellow, &c.)

Turning, Wood, to Order—
Union Hardware Co., Torrington, Ct.

Turns, Bell—
Reading Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.

Turns, Cupboard—
Peck, Stoy & Wilcox Co., 27 Murray St., New York.

Turning Hardware Co., Reading, Pa.
Russell & Erwin Mfg. Co., 94-98 Lafayette St., New York.
Shelby Spring Hinge Co., Shelby, O.
Taylor & Boggis Foundry Co., Cleveland, O.

Turn Tables, Bridge and Railroad—

American Bridge Co. of New York, 42 Broadway, N. Y.
Atlas Car & Mfg. Co., Cleveland, O.
Baltimore Bridge Co., Baltimore, Md.
Belmont Iron Works, Inc., Philadelphia, Pa.
Boston Bridge Works, Boston, Mass.
Brown Hoisting Machinery Co., Cleveland, O.
Cleveland Crane & Car Co., Wickliffe, O.
Interstate Engineering Co., Bedford, O.
Kilbourne & Jacobs Mfg. Co., Columbus, O.
Arthur Koppel Co., Pittsburgh, Pa.
Northern Engineering Works, Detroit, Mich.
Virginia Bridge & Iron Co., Roanoke, Va.
Whiting Foundry Equipment Co., Harvey, Ill.
Ernst Wiener Co., Broad and Beaver Sts., New York.

Turn Tables, Mine—
Arthur Koppel Co., Pittsburgh, Pa.
Northern Engineering Works, Detroit, Mich.

Turn Tables, Shop—
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Byram & Co., Inc., Detroit, Mich.
Chase Foundry & Mfg. Co., Columbus, O.
C. W. Hunt Co., West New Brighton, New York.

W. K. Kenly Co., First National Bank Bldg., Chicago, Ill.

Arthur Koppel Co., Pittsburgh, Pa.
Northern Engineering Works, Detroit, Mich.

Reading Crane & Hoist Works, Reading, Pa.

J. D. Smith Foundry Supply Co., Cleveland, O.

Ernst Wiener Co., Broad and Beaver Sts., New York.

Yale & Towne Mfg. Co., 9 Murray St., New York.

Turret Drilling Machines, Lathes—

(See Drilling Machines, Lathes.)

Turret Head Tools—
T. R. Almond Mfg. Co., Ashburnham, Mass.

Tuyere Irons—
(See Irons, Tuyere.)

Tuyeres, Clay, for Bessemer Converters—

Harbison-Walker Refractories Co., Pittsburgh, Pa.

Tweezers—
Schuchardt & Schutte, 136 Liberty St., New York.

Twine, Binder—
American Mfg. Co., 65 Wall St., N. Y.

Waterbury Co., 69 South St., N. Y.

Twine, Box, Tying—
New York Cordage Co., 83-85 Wall St., New York.

Twine Boxes, Holders—
(See Boxes, Holders.)

Twine, Cotton—

Estes Mills, Fall River, Mass.

Twine, Finished India—

American Mfg. Co., 65 Wall St., N. Y.

Twine, Flax, Hemp, Jute and Wool—
American Mfg. Co., 65 Wall St., N. Y.

New York Cordage Co., 83-85 Wall St., N. Y.

Twist Drill Grinding Machines—
(See Grinders, Drill.)

Twist Drills—
(See Drills, Twist.)

Type Metal—
Pittsburgh White Metal Co., Pittsburgh.

Typewriters—

Fox Machine Co., Grand Rapids, Mich.

Umbrella Stands, &c.—
(See Stands.)

Underwriters' Wire—
(See Wires, Electrical.)

Uniform Buttons—
(See Buttons, Uniform.)

Union Scales—
(See Scales, Union.)

Unions, Flanged Pipe—
Jefferson Union Co., Lexington, Mass.

National Tube Co., Pittsburgh, Pa.

Unions, Pipe—

Bard Union Co., Norwich, Ct.
E. M. Dart Mfg. Co., Providence, R. I.

Grabler Mfg. Co., Cleveland, O.

Jefferson Union Co., Lexington, Mass.

Lunkenheimer Co., Cincinnati, O.

National Tube Co., Pittsburgh, Pa.

Nolte Brass Co., Springfield, O.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Wm. Powell Co., Cincinnati, O.

Walworth Mfg. Co., Boston, Mass.

Universal Squares—
(See Squares, Combination.)

Unloaders, Hay—

F. E. Myers & Bro., Ashland, O.

Unloaders, Railroad Ballast—

Lidgerwood Mfg. Co., 96 Liberty St., New York.

Upholsterers' and Saddlery Hammers—
(See Hammers, Saddlery and Upholsterers.)

- Upholsterers' Regulators—**
(See Regulators, Upholsterers.)
- Upholstery and Curtain Fixtures—**
(See Curtain and Upholstery Fixtures.)
- Upright Pulleys—**
(See Pulleys, Upright.)
- Upsetters, Tire—**
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
- Upsetting Collars—**
Standard Welding Co., Cleveland, O.
- Upsetting Machines—**
Ajax Mfg. Co., Cleveland, O.
National Machinery Co., Tiffin, O.
E. B. Stimpson Co., 31 Spruce St., N. Y.
Williams, White & Co., Moline, Ill.
- Urinals—**
Humphreys Mfg. Co., Mansfield, O.
- Urn—**
(See Architectural Sheet Metal Work.)
- Urn, Coffee—**
Landers, Frary & Clark, New Britain, Ct.
- Urn, Coffee and Hot Water, Electric—**
General Electric Co., Schenectady, N. Y.
- Urn, Stove—**
Mathews Mfg. Co., Worcester, Mass.
- Vacuum Pumps—**
(See Pumps, Compression and Vacuum.)
- Valleys and Gutters, in Rolls—**
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
Globe Iron Roofing & Corrugating Co., Cincinnati, O.
- Valve Discs—**
(See Discs.)
- Valve Packing—**
(See Packing Valve.)
- Valve Stems—**
Finished Steel Co., Youngstown, O.
Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.
J. H. Williams & Co., Brooklyn, N. Y.
- Valve Wheels, Steam—**
(See Wheels, Steam Valve.)
- Valves, Air, Water, Gas and Steam—**
American Furnace & Machine Co., Pittsburgh, Pa.
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
Ashton Valve Co., Boston, Mass.
Best Mfg. Co., Pittsburgh, Pa.
Crosby Steam Gauge & Valve Co., Boston.
Dimmick Pipe Co., Birmingham, Ala.
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
Hancock Inspirator Co., 85-89 Liberty St., New York.
Jarecki Mfg. Co., Erie, Pa.
Jenkins Bros., 71 John St., New York.
Kennedy Valve Mfg. Co., 58 Beekman St., New York.
Lunkenheimer Company, Cincinnati, O.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
R. Munroe & Sons Mfg. Corporation, Pittsburgh, Pa.
- National Tube Co., Pittsburgh, Pa.**
Nolte Brass Co., Springfield, O.
Philadelphia Roll & Machine Co., 23d St. & Washington Ave., Philadelphia.
- Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.**
Wm. Powell Co., Cincinnati, O.
Walworth Mfg. Co., Boston, Mass.
Watson-Stillman Co., 28 Cortlandt St., New York.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.
- Valves, Ammonia—**
Jarecki Mfg. Co., Erie, Pa.
Jenkins Bros., 71 John St., New York.
Kennedy Valve Mfg. Co., 58 Beekman St., New York.
- Lunkenheimer Co., Cincinnati, O.**
National Tube Co., Pittsburgh, Pa.
- Valves and Plungers, Boat Pump—**
Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
- Valves, Armored Pump—**
Power Specialty Co., 111 Broadway, N. Y.
- Valves, Balanced—**
W. E. Caldwell Co., Louisville, Ky.
Kennedy Valve Mfg. Co., 58 Beekman St., New York.
- Mason Regulator Co., Boston, Mass.**
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
- Valves, Bicycle—**
Scovill Mfg. Co., Waterbury, Ct.
- Valves, Blast Furnace—**
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
- Valves, Blow Off—**
Ashton Valve Co., Boston, Mass.
Chicago Pneumatic Tool Co., Fisher Building, Chicago, Ill.
- Crosby Steam Gauge & Valve Co., Boston.**
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
Hancock Inspirator Co., 85-89 Liberty St., New York.
Jenkins Bros., 71 John St., New York.
Lunkenheimer Co., Cincinnati, O.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Gauge & Supply Co., Pittsburgh.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Wm. Powell Co., Cincinnati, O.
Walworth Mfg. Co., Boston, Mass.
Wickes Bros., Saginaw, Mich.
- Valves, Butterfly—**
Lunkenheimer Co., Cincinnati, O.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
- Valves, Check—**
Ashcroft Mfg. Co., 85-89 Liberty St., N. Y.
W. & B. Douglas, Middletown, Ct.
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hancock Inspirator Co., 85-89 Liberty St., New York.
Hayden & Derby Mfg. Co., 85-89 Liberty St., New York.
Jarecki Mfg. Co., Erie, Pa.
Jenkins Bros., 71 John St., New York.
Kennedy Valve Mfg. Co., 58 Beekman St., New York.
- Lunkenheimer Company, Cincinnati, O.**
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
National Tube Co., Pittsburgh, Pa.
Nolte Brass Co., Springfield, O.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Wm. Powell Co., Cincinnati, O.
Walworth Mfg. Co., Boston, Mass.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Valves, Cylinder Relief—
American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Valves, Exhaust—
Best Mfg. Co., Pittsburgh, Pa.
Eynon-Evans Mfg. Co., 1507 Clearfield St., Philadelphia, Pa.

Jenkins Bros., 71 John St., New York.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Wm. Powell Co., Cincinnati, O.

Valves, Fire Sprinkler—
Kennedy Valve Mfg. Co., 58 Beekman St., New York.

Valves, Float—
W. E. Caldwell Co., Louisville, Ky.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Valves, Foot—
L. J. Barwood Co., Inc., Boston, Mass.
National Tube Co., Pittsburgh, Pa.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Valves, Gas and Gasoline Engine—
Erie Forge Co., Erie, Pa.

Lunkenheimer Co., Cincinnati, O.

Valves, Gate—
American Spiral Pipe Works, 1173-1201 S. Paulina St., Chicago, Ill.
Best Mfg. Co., Pittsburgh, Pa.

Jenkins Bros., 71 John St., New York.
Kennedy Valve Mfg. Co., 58 Beekman St., New York.

National Tube Co., Pittsburgh, Pa.
Ohio Brass Co., Mansfield, O.
Pennsylvania Engineering Works, New Castle, Pa.

Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Pittsburgh Mfg. Co., Pittsburgh, Pa.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Wm. Powell Co., Cincinnati, O.
Walworth Mfg. Co., Boston, Mass.

Watson-Stillman Co., 26 Cortlandt St., New York.
R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Valves, High Pressure—
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Valves, Hose—
National Tube Co., Pittsburgh, Pa.

Valves, House Heating Boiler Safety—
Consolidated Safety Valve Co., 85-89 Liberty St., New York.

Valves, Hydraulic—
Chambersburg Engineering Co., Chambersburg, Pa.

Charles F. Elmes Engineering Co., 253-259 Fulton St., Chicago, Ill.

Morgan Engineering Co., Alliance, O.
National Tube Co., Pittsburgh, Pa.

Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.

Taylor-Wilson Mfg. Co., McKees Rocks, Pa.

R. D. Wood & Co., 400 Chestnut St., Philadelphia, Pa.

Valves, Hydraulic Relief—
American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Lunkenheimer Co., Cincinnati, O.
Wm. Powell Co., Cincinnati, O.

Sheffield Car Co., Three Rivers, Mich.
Watson-Stillman Co., 26 Cortlandt St., New York.

Valves, Indicator—
Kennedy Valve Co., 57 Beekman St., N.Y.

Valves, Lever—
Jenkins Bros., 71 John St., New York.

Kennedy Valve Mfg. Co., 58 Beekman St., New York.

Lunkenheimer Co., Cincinnati, O.
Mason Regulator Co., Boston, Mass.

Wm. Powell Co., Cincinnati, O.

Valves, Locomotive Blow Off—
Consolidated Safety Valve Co., 85-89 Liberty St., New York.

Lunkenheimer Co., Cincinnati, O.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Valves, Motor Operated—
Kennedy Valve Mfg. Co., 58 Beekman St., New York.

Valves, Needle—
American Gas Machine Co., Albert Lea, Minn.

Lunkenheimer Co., Cincinnati, O.

Valves, Non-Return Stop—
Power Specialty Co., 111 Broadway, N. Y.

Valves, Pressure Regulating—
Ohio Brass Co., Mansfield, O.

Valves, Radiator—
Jarecki Mfg. Co., Erie, Pa.

Jenkins Bros., 71 John St., New York.
Kennedy Valve Mfg. Co., 58 Beekman St., New York.

Lunkenheimer Company, Cincinnati, O.
National Tube Co., Pittsburgh, Pa.

Ohio Brass Co., Mansfield, O.
Walworth Mfg. Co., Boston, Mass.

Valves, Reducing—
Julian D'Este Co., Boston, Mass.

Jenkins Bros., 71 John St., N. Y.
Mason Regulator Co., Boston, Mass.

Ohio Brass Co., Mansfield, O.
Walworth Mfg. Co., Boston, Mass.

Watson-Stillman Co., 26 Cortlandt St., New York.

Valves, Regrinding—
National Tube Co., Pittsburgh, Pa.

Valves, Regrinding Disc—
Wm. Powell Co., Cincinnati, O.

Valves, Relief—
American Steam Gauge & Valve Mfg. Co., Boston, Mass.

Ashton Valve Co., Boston, Mass.
Consolidated Safety Valve Co., 85-89 Liberty St., New York.

Crosby Steam Gauge & Valve Co., Boston.
Julian D'Este Co., Boston, Mass.

Jarecki Mfg. Co., Erie, Pa.
Jenkins Bros., 71 John St., New York.

Lunkenheimer Company, Cincinnati, O.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.

Mason Regulator Co., Boston, Mass.
John H. McGowan & Co., Cincinnati, O.

- Pittsburgh Valve, Foundry & Construction Co.,** Pittsburgh, Pa.
Wm. Powell Co., Cincinnati, O.
Sheffield Car Co., Three Rivers, Mich.
Walworth Mfg. Co., Boston, Mass.
Watson-Stillman Co., 26 Cortlandt St., New York.
- Valves, Reversing—**
Wellman-Seaver-Morgan Co., Cleveland, O.
- Valves, Reversing, Gas and Air—**
Morgan Construction Co., Worcester, Mass.
- Valves, Rubber—**
H. O. Canfield, Bridgeport, Ct.
Crosby Steam Gage & Valve Co., Boston.
Jenkins Bros., 71 John St., New York.
New York Belting & Packing Co., 91-93 Chambers St., New York.
- Valves, Safety—**
American Steam Gage & Valve Mfg. Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Consolidated Safety Valve Co., 85-89 Liberty St., New York.
Crosby Steam Gage & Valve Co., Boston.
Jarecki Mfg. Co., Erie, Pa.
Jenkins Bros., 71 John St., New York.
Kennedy Valve Mfg. Co., 58 Beekman St., New York.
Lunkenheimer Company, Cincinnati, O.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
National Tube Co., Pittsburgh, Pa.
Wm. Powell Co., Cincinnati, O.
Watson-Stillman Co., 26 Cortlandt St., New York.
- Valves, Siemens Gas—**
Taylor-Wilson Mfg. Co., McKees Rocks, Pa.
- Valves, Sniffing—**
American Steam Gage & Valve Mfg. Co., Boston, Mass.
- Ashton Valve Co.,** Boston, Mass.
Consolidated Safety Valve Co., 85-89 Liberty St., New York.
- Valves, Steam Pump—**
Jenkins Bros., 71 John St., New York.
- Valves, Stop and Waste—**
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
- Valves, Tank—**
Novelty Iron Works, Sterling, Ill.
- Valves, Throttle—**
Lunkenheimer Co., Cincinnati, O.
Manning, Maxwell & Moore, Inc., 85-89 Liberty St., New York.
- Pittsburgh Valve, Foundry & Construction Co.,** Pittsburgh, Pa.
Wm. Powell Co., Cincinnati, O.
- Valves, Tubular Well—**
American Well Works, Aurora, Ill.
- Valves, Tways—**
Lunkenheimer Co., Cincinnati, O.
- Valves, Vacuum—**
Consolidated Safety Valve Co., 85-89 Liberty St., New York.
John H. McGowan Co., Cincinnati, O.
Mason Regulator Co., Boston, Mass.
- Valves, Water Relief—**
American Steam Gage & Valve Mfg. Co., Boston, Mass.
- Vanadium—**
Vanadium Alloy Co., 25 Broad St., N. Y.
- Vanes, Metal—**
 (See Finials and Vanes, Metal.)
- Vanes, Weather—**
 (See Iron, Brass and Bronze, Ornamental.)
- Vapor Lamps, Gasoline—**
 (See Lamps, Gasoline, Gas.)
- Varnish and Paint Removers—**
Schneider & Trenkamp Co., Div., American Stove Co., Cleveland, O.
- Varnish Cans—**
 (See Cans, Paint and Varnish.)
- Varnish Rubbing Machines—**
 (See Sand Papering and Varnish Rubbing Machines.)
- Varnishing Machines—**
Chambers Bros. Co., 524 St., below Lancaster Ave., Philadelphia, Pa.
- Vases, Cemetery or Lawn—**
Wm. F. Kasting Co., Buffalo, N. Y.
- Vases, Decorated Metal—**
Goodwin & Kintz Co., Winsted, Ct.
- Vases, Lawn—**
S. Cheney & Son, Manlius, N. Y.
Enterprise Foundry & Fence Co., Indianapolis, Ind.
- Ludlow-Saylor Wire Co.,** St. Louis, Mo.
Novelty Iron Works, Sterling, Ill.
Steel Basket Co., Cedar Rapids, Ia.
Sterling Emery Wheel Mfg. Co., Tiffin, O.
Stewart Iron Works Co., Cincinnati, O.
Van Dorn Iron Works Co., Cleveland, O.
- Vases, Silver Plated—**
International Silver Co., Meriden, Ct.
- Vats, Acid—**
 (See Acid Tanks, Tubs, &c.)
- Vaults, Fire and Burglar Proof—**
Bethlehem Steel Co., So. Bethlehem, Pa.
Stewart Iron Works Co., Cincinnati, O.
Taylor Iron & Steel Co., High Bridge, N. J.
- Van Dorn Iron Works Co.,** Cleveland, O.
- Vegetable, Food and Meat Cutters—**
 (See Cutters, Food, Meat and Vegetable.)
- Vegetable Boilers, Wire—**
 (See Kitchen Articles, Wire.)
- Vegetable Mashers, Parers, &c.—**
 (See Mashers, Parers, &c.)
- Vehicle Wheels—**
 (See Wheels, Vehicle.)
- Vehicles, Lever Propelling, Child's—**
Kirk-Latty Mfg. Co., Cleveland, O.
- Velocipedes—**
Kirk-Latty Mfg. Co., Cleveland, O.
- Veneering Saws—**
 (See Saws, Segment or Veneering.)
- Veneer Sawing Machines—**
 (See Sawing Machines, Veneer.)
- Ventilating and Heating Apparatus—**
 (See Heating and Ventilating Apparatus.)
- Ventilating System, Factory Sash Operating—**
G. Drouve Co., Bridgeport, Ct.
- Ventilating Window Fasteners—**
 (See Locks, Sash and Ventilating.)
- Ventilator Appliances—**
 (See Heating and Ventilating Apparatus.)
- Ventilator Caps, Cord—**
 (See Caps, Cord.)
- Ventilators—**
 (See Registers and Ventilators.)

Ventilators and Chimney Caps.

Berger Bros. Co., 231-237 Arch St., Philadelphia, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
G. Drouve Co., Bridgeport, Ct.
Eller Mfg. Co., Canton, O.
Globe Ventilator Co., Troy, N. Y.
Hess-Snyder Co., Massillon, O.
Merchant & Evans Co., Philadelphia, Pa.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Ventilators, Building—

Boston Blower Co., Hyde Park, Mass.
Burt Mfg. Co., Akron, O.
Chattanooga Roofing & Foundry Co., Chattanooga, Tenn.
Eller Mfg. Co., Canton, O.
Globe Ventilator Co., Troy, N. Y.
Howard & Morse, 45 Fulton St., N. Y.
Merchant & Evans Co., Philadelphia, Pa.
Stirling Blower & Pipe Mfg. Co., Hartford, Ct.

Ventilators, Flue—

Merchant & Evans Co., Philadelphia, Pa.
Ventilators, Railroad Car—
Globe Ventilator Co., Troy, N. Y.
Harrington & King Perforating Co., 224 N. Union St., Chicago, Ill.

Ventilators, Skylight—

E. B. Badger & Sons Co., Boston, Mass.
Burt Mfg. Co., Akron, O.
Globe Ventilator Co., Troy, N. Y.
Thos. W. Irwin Mfg. Co., Allegheny, Pa.
Merchant & Evans Co., Philadelphia, Pa.

Ventilators, Window—

Caldwell Mfg. Co., Rochester, N. Y.
Zephyr Ventilator & Mfg. Co., Inc., Wayne Junc., Philadelphia, Pa.

Vessel Loading and Unloading Machinery—

Wellman-Seaver-Morgan Co., Cleveland, O.

Vise and Anvil—

(See Anvil and Vise.)

Vise Attachments—

Tower & Lyon Co., 95 Chambers St., New York.

Vise Clamps, Jaws—

(See Clamps, Jaws.)

Vise Grips, Pipe—

Prentiss Vise Co., 44 Barclay St., N. Y.

Vise Jaw Caps—

Prentiss Vise Co., 44 Barclay St., N. Y.

Vises, Amateur—

Athol Machine Co., Athol, Mass.
Columbia Grey Iron Co., Columbia, Pa.

Vises, Automobile and Motor Boat—

Pittsburgh Automatic Vise & Tool Co., Pittsburgh, Pa.

Vises, Bicycle—

Fox Machine Co., Grand Rapids, Mich.
Prentiss Vise Co., 44 Barclay St., N. Y.

Vises, Cabinet—

Barbour-Stockwell Co., Cambridgeport, Mass.

Oliver Machinery Co., Grand Rapids, Mich.

Prentiss Vise Co., 44 Barclay St., N. Y.
Rock Island Tool Co., Rock Island, Ill.

J. D. Smith Foundry Supply Co., Cleveland, O.

Tower & Lyon Co., 95 Chambers St., New York.

Wyman & Gordon, Worcester, Mass.

Vises, Carpenters'—

(See Vises, Woodworkers.)

Vises, Carpenters' Wooden—
Oliver Machinery Co., Grand Rapids, Mich.

Vises, Carpet and Oilcloth—
(See Stretchers, Carpet.)

Vises, Coach Makers'—

Chas. Parker Co., Meriden, Ct.

Vises, Die Sinkers'—

Chas. Parker Co., Meriden, Ct.
Rock Island Tool Co., Rock Island, Ill.

Vises, Drill and Anvil—

Millers Falls Co., 28 Warren St., N. Y.
Prentiss Vise Co., 44 Barclay St., N. Y.
Rock Island Tool Co., Rock Island, Ill.

Vises, Drill Press—

Hoggon & Pettis Mfg. Co., New Haven, Ct.

B. B. Noyes & Co., Greenfield, Mass.
Pittsburgh Automatic Vise & Tool Co., Pittsburgh, Pa.

Skinner Chuck Co., New Britain, Ct.
Sterling Emery Wheel Mfg. Co., Tiffin, O.

Vises, Farmers'—

Athol Machine Co., Athol, Mass.

Vises, Foot—

B. B. Noyes & Co., Greenfield, Mass.

Vises, Hand or Pin—

Billings & Spencer Co., Hartford, Ct.
John S. Fray & Co., Bridgeport, Ct.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., 28 Warren St., N. Y.
Schuchardt & Schutte, 136 Liberty St., New York.

Otis A. Smith, Rockfall, Ct.
L. S. Starrett Co., Athol, Mass.

Wrightsville Hardware Co., Wrightsville, Pa.

Vises, Horseshoers'—

Blake & Johnson Co., Waterbury, Ct.
P. F. Burke, Boston, Mass.

Columbus Forge & Iron Co., Columbus, O.
B. B. Noyes & Co., Greenfield, Mass.

Rock Island Tool Co., Rock Island, Ill.
Wiley & Russell Mfg. Co., Greenfield, Mass.

Vises, Jewelers'—

Columbia Grey Iron Co., Columbia, Pa.
Charles Parker Co., Meriden, Ct.

Pittsburgh Automatic Vise & Tool Co., Pittsburgh, Pa.

Tower & Lyon Co., 95 Chambers St., N. Y.

Vises, Machinists'—

(See Vises, Parallel.)

Vises, Milling Machine, Planer and Shaper—

Becker-Brainard Milling Machine Co., Hyde Park, Mass.

Brown & Sharpe Mfg. Co., Providence, R. I.

Fox Machine Co., Grand Rapids, Mich.
Gould & Eberhardt, Newark, N. J.

Hendey Machine Co., Torrington, Ct.
Niles-Bement-Pond Co., 111 Broadway, New York.

Potter & Johnston Machine Co., Pawtucket, R. I.

Powell Tool Co., Worcester, Mass.
Pratt & Whitney Co., Hartford, Ct.

Schuchardt & Schutte, 136 Liberty St., New York.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

Vises, Motor Boat—

(See Vises, Automobile and Motor Boat.)

Vises, Parallel—

Eagle Anvil Works, Trenton, N. J.
 Fox Machine Co., Grand Rapids, Mich.
 Merrill Bros., Brooklyn, N. Y.
 Millers Falls Co., 28 Warren St., N. Y.
 Chas. Parker Co., Meriden, Ct.
 Peck, Stow & Wilcox Co., 27 Murray St.,
 New York.

Pittsburgh Automatic Vise & Tool Co.,
 Pittsburgh, Pa.
 Prentiss Vise Co., 44 Barclay St., N. Y.
 Rock Island Tool Co., Rock Island, Ill.
 Tower & Lyon Co., 95 Chambers St.,
 New York.

Vises, Pin—

(See Vises, Hand or Pin.)

Vises, Pipe—

American Well Works, Aurora, Ill.
 Butterfield & Co., Derby Line, Vt.
 Curtis & Curtis Co., Bridgeport, Ct.
 A. L. Hender's Sons, Wilmington, Del.
 Humphreys Mfg. Co., Mansfield, O.
 Jarecki Mfg. Co., Erie, Pa.
 Chas. Parker Co., Meriden, Ct.
 Pittsburgh Automatic Vise & Tool Co.,
 Pittsburgh, Pa.
 Prentiss Vise Co., 44 Barclay St., N. Y.
 Rock Island Tool Co., Rock Island, Ill.
 D. Saunders' Sons, Yonkers, N. Y.
 Schuchardt & Schutte, 136 Liberty St.,
 New York.

Walworth Mfg. Co., Boston, Mass.
 F. E. Wells & Sons Co., Greenfield, Mass.
 J. H. Williams & Co., Brooklyn, N. Y.

Vises, Saw Filers—

E. C. Atkins & Co., Indianapolis, Ind.
 Henry Disston & Sons, Philadelphia, Pa.
 Oliver Machinery Co., Grand Rapids,
 Mich.

Chas. Parker Co., Meriden, Ct.
 Simonds Mfg. Co., Fitchburg, Mass.

Vises, Solid Box—

Tower & Lyon Co., 95 Chambers St.,
 New York.

**Vises, Typewriter Manu-
facturers—**

Prentiss Vise Co., 44 Barclay St., N. Y.
Vises, Woodworkers—
 Barbour-Stockwell Co., Cambridgeport,
 Mass.

Fox Machine Co., Grand Rapids, Mich.
 Oliver Machinery Co., Grand Rapids,
 Mich.

Pittsburgh Automatic Vise & Tool Co.,
 Pittsburgh, Pa.

Prentiss Vise Co., 44 Barclay St., N. Y.
 Rock Island Tool Co., Rock Island, Ill.
 Wyman & Gordon, Worcester, Mass.

Volt Meters—

(See Meters, Volt.)

Wads, Gun—

Union Metallic Cartridge Co., Bridge-
 port, Ct.

Waffle Irons—

(See Irons, Waffle.)

Waging Wire—

(See Wire, Pointing.)

**Wagon and Carriage Ma-
chinery—**

Badger State Machine Co., Inc., Janes-
 ville, Wis.
 National Machinery Co., Tiffin, O.
 Williams, White & Co., Moline, Ill.

Wagon Axles, Chains, &c.—

(See Axles, Chains, &c.)

Wagons, Boys—

Kirk-Latty Mfg. Co., Cleveland, O.

Wagons, Coaster—

Kirk-Latty Mfg. Co., Cleveland, O.

Wagons, Dairy—

Sycamore Wagon Works, Sycamore, Ill.

Wagons, Delivery (Bakery,

**Furniture, Grocery, Hard-
 ware, Laundry, Meat)—**
 Sycamore Wagon Works, Sycamore, Ill.

Wagons, Delivery, Gaso-

line—
 Sheffield Car Co., Three Rivers, Mich.

Wagons, Live Stock—

Sycamore Wagon Works, Sycamore, Ill.

Wagons, Mill—

Chase Foundry & Mfg. Co., Columbus, O.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Wagons, Piano—

Sycamore Wagon Works, Sycamore, Ill.

Waist Hangers—

(See Hangers, Garment and Trouser.)

Walters, Dumb—

Energy Elevator Co., 214 New St., Phila-
 delphia, Pa.

Morse, Williams & Co., Philadelphia, Pa.

Sidney Elevator Mfg. Co., Sidney, O.

J. G. Speidel, Reading, Pa.

Storm Mfg. Co., Newark, N. J.

Warner Elevator Mfg. Co., Cincinnati, O.

Warsaw Elevator Co., Warsaw, N. Y.

Walters, Silver and Silver

Plated—
 International Silver Co., Meriden, Ct.

Walk Scrapers—

(See Scrapers, Walk and Street.)

Wall Lighting Fixtures—

(See Chandeliers and Wall Fixtures.)

Wall Scrapers—

(See Scrapers.)

Wantage Rods—

(See Rods, Gauging.)

Wardrobe Hooks—

(See Hooks, Coat, Hat, &c.)

Wardrobes, Office and Shop—

(See Lockers.)

Ware, Brass and Copper—

Gueder & Paeschke Mfg. Co., Milwaukee,
 Wis.

Lalance & Grosjean Mfg. Co., 299 Broad-
 way, New York.

Ware, Enameled—

Avery Stamping Co., Cleveland, O.

Cleveland Stamping & Tool Co., Cleve-
 land, O.

Gueder & Paeschke Mfg. Co., Milwaukee,
 Wis.

Lalance & Grosjean Mfg. Co., 299 Broad-
 way, New York.

Stuart & Peterson Co., Burlington, N. J.

Ware, Fused Quartz—

Charles Engelhard, 32 Cortlandt St., N. Y.

Ware, Galvanized Sheet

Iron—
 Gueder & Paeschke Mfg. Co., Milwaukee,
 Wis.

Lalance & Grosjean Mfg. Co., 299 Broad-
 way, New York.

Ware, Hollow, Aluminum—

Gueder & Paeschke Mfg. Co., Milwaukee,
 Wis.

Lalance & Grosjean Mfg. Co., 299 Broad-
 way, New York.

Ware, Hollow, Cast Alumi-

num—
 Griswold Mfg. Co., Erie, Pa.

Ware, Hollow, Cast Iron

Stove—
 Griswold Mfg. Co., Erie, Pa.

Stuart & Peterson Co., Burlington, N. J.

Ware, Hollow, Silver and Silver Plated—

International Silver Co., Meriden, Ct.

Ware, Hollow Steel—

Avery Stamping Co., Cleveland, O.

Cleveland Stamping & Tool Co., Cleveland, O.

Fanner Mfg. Co., Cleveland, O.

Sturges & Burn Mfg. Co., Chicago, Ill.

Ware, Janned—

Gueder & Paeschke Mfg. Co., Milwaukee, Wis.

Lalance & Grosjean Mfg. Co., 299 Broadway, New York.

Ware, Plinished—

Lalance & Grosjean Mfg. Co., 299 Broadway, New York.

Ware, Platinum—

Baker & Co., Inc., Newark, N. J.

J. Bishop & Co., Malvern, Pa.

Ware, Tin—

(See Tinware.)

Warehouse Trucks—

(See Trucks, Stone Warehouse, etc.)

Warm Air Furnaces—

(See Furnaces, Warm Air.)

Warmers, Soapstone Foot—

Pike Mfg. Co., Pike, N. H.

Warp and Yarn—

Broderick & Bascom Rope Co., St. Louis.

Estes Mills, Fall River, Mass.

Wash Bowls, Factory and Shop—

Manufacturing Equipment & Engineering Co., Boston, Mass.

Washboard Blanks—

Matthiessen & Hegeler Zinc Co., La Salle, Ill.

Washboard Knives—

(See Knives, Machine.)

Washer and Humidifier, Gas—

Buffalo Forge Co., Buffalo, N. Y.

Washer Cutters—

(See Cutters, Washer.)

Washer Machines—

National Machinery Co., Tiffin, O.

Washers and Disks, Rubber—

(See Gaskets and Rings, Rubber.)

Washers and Street Hydrants—

(See Hydrants and Street Washers.)

Washers, Axle—

Hubbard & Co., Pittsburgh, Pa.

Washers, Bibb and Faucet—

L. J. Barwood Co., Inc., Boston, Mass.

Washers, Brass—

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

New York Washer & Gasket Co., Brooklyn, N. Y.

Nicetown Plate Washer Co., Philadelphia, Pa.

Arthur T. Rutter & Co., 256 Broadway, New York.

Scovill Mfg. Co., Waterbury, Ct.

Seymour Mfg. Co., Seymour, Ct.

Steward & Romaine Mfg. Co., Philadelphia, Pa.

F. B. Stimpson Co., 31 Spruce St., N. Y.

U. S. Indestructible Gasket Co., 16 S. William St., New York.

W. & S. Mfg. Co., Worcester, Mass.

Washers, Cast—

American Iron & Steel Mfg. Co., Lebanon, Pa.

Bancroft & Co., Philadelphia, Pa.

Belmont Iron Works, Inc., Philadelphia.

Bethlehem Foundry & Machine Co., South Bethlehem, Pa.

E. E. Brown & Co., McKean and Meadow Sts., Philadelphia, Pa.

Buchanan Foundry Co., Lebanon, Pa.

S. Cluency & Son, Manlius, N. Y.

Samuel Hall's Sons, 229-233 W. 10th St., New York.

Wm. H. Haskell Mfg. Co., Pawtucket, R. I.

Humphrey Machine Co., Keene, N. H.

M. Lanz & Sons, Pittsburgh, Pa.

Pittsburgh Mfg. Co., Pittsburgh, Pa.

Louis Sacks, Newark, N. J.

Upton Nut Co., Cleveland, O.

Western Foundry & Sash Weight Co., St. Louis, Mo.

Washers, Clothes—

(See Washing Machines.)

Washers, Copper—

New York Washer & Gasket Co., Brooklyn, N. Y.

Seymour Mfg. Co., Seymour, Ct.

E. B. Stimpson Co., 31 Spruce St., N. Y.

U. S. Indestructible Gasket Co., 16 S. William St., New York.

Washers, Disc—

Bancroft & Co., Philadelphia, Pa.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Worcester Pressed Steel Co., Worcester, Mass.

Washers, Electrical Insulation—

L. J. Barwood Co., Inc., Boston, Mass.

Washers, Endthrust Bearing, Fiber—

L. J. Barwood Co., Inc., Boston, Mass.

Washers, Fiber, Felt and Paper—

L. J. Barwood Co., Inc., Boston, Mass.

New York Washer & Gasket Co., Brooklyn.

U. S. Indestructible Gasket Co., 16 So. William St., New York.

Washers, Floor—

(See Plates and Washers, Floor.)

Washers, Foundation—

(See Iron Work, Builders.)

Washers, Galvanized—

Keystone Nail Co., Philadelphia, Pa.

M. Lanz & Sons, Pittsburgh, Pa.

Thomas Laughlin Co., Portland, Me.

Nicetown Plate Washer Co., 1822-1850 W. Juniata St., Philadelphia, Pa.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Wilcox, Crittenden & Co., Inc., Middletown, Ct.

Washers, Knob—

Taylor & Boggis Foundry Co., Cleveland, O.

Washers, Lead—

Globe Iron Roofing & Corrugating Co., Cincinnati, O.

New York Washer & Gasket Co., Brooklyn, N. Y.

E. B. Stimpson Co., 31 Spruce St., N. Y.

U. S. Indestructible Gasket Co., 16 S. William St., New York.

Washers, Leather—

Barnes Mfg. Co., Mansfield, O.

L. J. Barwood Co., Inc., Boston, Mass.

Graton & Knight Mfg. Co., Worcester, Mass.

J. M. Marston & Co., Boston, Mass.

Chas. L. Stevens & Co., Detroit, Mich.

- Washers, Leather Treated**—
New York Washer & Gasket Co., Brooklyn, N. Y.
- U. S. Indestructible Gasket Co.**, 16 So. William St., New York.
- Washers, Lock**—
Hobbs Mfg. Co., Worcester, Mass.
- Washers, Metallic**—
Arthur T. Rutter & Co., 256 Broadway, New York.
- E. B. Stimpson Co.**, 31 Spruce St., N. Y.
- Waterbury Brass Co.**, Waterbury, Ct.
- Washers, Oil Can**—
L. J. Barwood Co., Inc., Boston, Mass.
- Washers, Phosphor Bronze**—
New York Washer & Gasket Co., Brooklyn, N. Y.
- U. S. Indestructible Gasket Co.**, 16 So. William St., New York.
- Washers, Prop Block**—
McKinnon Dash Co., Buffalo, N. Y.
- Washers, Railroad Car**—
Osborn Mfg. Co., Cleveland, O.
- Washers, Roofing**—
New York Washer & Gasket Co., Brooklyn, N. Y.
- Washers, Rubber**—
(See Gaskets and Rings, Rubber.)
- Washers, Shoddy**—
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
- Washers, Special**—
Hubbard & Co., Pittsburgh, Pa.
- Washers, Steel**—
E. B. Stimpson Co., 31 Spruce St., N. Y.
- Youngstown Iron & Steel Roofing Co.**, Youngstown, O.
- Washers, Tin**—
(See Washers, Metallic.)
- Washers, Vegetable, &c.**—
Andrews Wire & Iron Works, Rockford, Ill.
- Washers, Wrought**—
American Iron & Steel Mfg. Co., Lebanon, Pa.
- Atlas Bolt & Screw Co.**, Cleveland, O.
- Avery Stamping Co.**, Cleveland, O.
- Belmont Iron Works, Inc.**, Philadelphia.
- Bettcher Mfg. Co.**, Cleveland, O.
- Clark Bros. Bolt Co.**, Milledale, Ct.
- Cobb & Drew, Inc.**, Plymouth, Mass.
- Graham Nut Co.**, Pittsburgh, Pa.
- Grand Crossing Tack Co.**, Grand Crossing, Ill.
- Griffin Mfg. Co.**, Erie, Pa.
- Sam'l Hall's Sons**, 229-233 W. 10th St., New York.
- Wm. H. Haskell Mfg. Co.**, Pawtucket, R. I.
- Henry A. Hittner's Sons Co.**, cor. Huntingdon and Aramingo Aves., Philadelphia, Pa.
- Hobbs Mfg. Co.**, Worcester, Mass.
- Hubbard & Co.**, Pittsburgh, Pa.
- R. C. Jenkinson & Co.**, Newark, N. J.
- M. Lanz & Sons**, Pittsburgh, Pa.
- Lawrence Bros.**, Sterling, Ill.
- H. A. Matthews Mfg. Co.**, Seymour, Ct.
- McKinney Mfg. Co.**, Allegheny, Pa.
- Milton Mfg. Co.**, Milton, Pa.
- National Bolt & Nut Co.**, Pittsburgh, Pa.
- New Castle Forge & Bolt Co.**, New Castle, Pa.
- Nicetown Plate Washer Co.**, 1822-1850 W. Juniata St., Philadelphia, Pa.
- Pittsburgh Mfg. Co.**, Pittsburgh, Pa.
- Republic Iron & Steel Co.**, Pittsburgh, Pa.
- Rhode Island Tool Co.**, Providence, R. I.
- St. Louis Screw Co.**, St. Louis, Mo.
- J. H. Sessions & Son**, Bristol, Ct.
- Shelton Co.**, Shelton, Ct.
- Stanley Works**, New Britain, Ct.
- E. B. Stimpson Co.**, 31 Spruce St., N. Y.
- Upson Nut Co.**, Cleveland, O.
- W. & S. Mfg. Co.**, Worcester, Mass.
- Wrought Washer Mfg. Co.**, Milwaukee.
- Washers, Wrought, Square**—
Hubbard & Co., Pittsburgh, Pa.
- New York Washer & Gasket Co.**, Brooklyn, N. Y.
- Nicetown Plate Washer Co.**, 1822-1850 Juniata St., Philadelphia, Pa.
- U. S. Indestructible Gasket Co.**, 16 So. William St., New York.
- Washing and Separating Machinery, Ore**—
Jeffrey Mfg. Co., Columbus, O.
- J. Howard Lingle Co.**, Bellefonte, Pa.
- Washing Machinery, Coal**—
(See Coal Washing Machinery.)
- Washing Machines, Clothes**—
American Mfg. Co., Lockland, O.
- H. F. Brammer Mfg. Co.**, Davenport, Ia.
- John Dietz Mfg. Co.**, Cincinnati, O.
- Princess Mfg. Co.**, Cincinnati, O.
- Standard Mfg. Co.**, Shelby, O.
- Waste Baskets, Boxes, Cans**—
(See Baskets, Boxes, Cans.)
- Waste, Cotton**—
Broderick & Bascom Rope Co., St. Louis.
- Estes Mills**, Fall River, Mass.
- A. Leschen & Sons**, Rope Co., St. Louis.
- Walsh's, Sons & Co.**, Newark, N. J.
- Watch Machinery**—
Waltham Machine Works, Waltham, Mass.
- Watches, Timers and Split Timers**—
Riggs & Bro., 310 Market St., Philadelphia, Pa.
- Watchmen's Clocks**—
(See Clocks, Watchmen's.)
- Water Closet Hinges**—
(See Hinges, Water Closet Seat.)
- Water Columns, Safety**—
Lunkenheimer Co., Cincinnati, O.
- Pittsburgh Gage & Supply Co.**, Pittsburgh, Pa.
- Water Elevators, &c.**—
(See Elevators, &c.)
- Water Pipe, Riveted**—
(See Pipe, Riveted Steel.)
- Water Softening and Purifying Process**—
Dodge Mfg. Co., Mishawaka, Ind.
- Harrison Safety Boiler Works**, 3194 N. 17th St., Philadelphia, Pa.
- Helwig Mfg. Co.**, St. Paul, Minn.
- Wm. B. Scaife & Sons Co.**, Pittsburgh.
- Water Wheels**—
Humphrey Machine Co., Keene, N. H.
- Lane Mfg. Co.**, Montpelier, Vt.
- Poole Engineering & Machine Co.**, Baltimore, Md.
- Craig Ridgway & Son Co.**, Coatesville, Pa.
- Wellman-Seaver-Morgan Co.**, Cleveland, O.
- R. D. Wood & Co.**, 400 Chestnut St., Philadelphia, Pa.
- Water Works Supplies**—
W. E. Caldwell Co., Louisville, Ky.
- Charles Millar & Son Co.**, Utica, N. Y.

Riter-Conley Mfg. Co., Pittsburgh, Pa.
Wm. B. Scaife & Sons Co., Pittsburgh.

Waterproof Wire—
 (See Wires, Electrical.)

Watt Meters, Recording—
 (See Meters, Recording Watt.)

Weaners, Calf and Cow—
Andrews Wire & Iron Works, Rockford,
 Ill.

Weatherproof Wire
 (See Wires, Electrical.)

Weaving Machines, Rattan—
Chas. Leffler & Co., Brooklyn, N. Y.

Web Halters—
 (See Halters.)

Webs, Turning, Felloe, &c.—
E. C. Atkins & Co., Indianapolis, Ind.
Henry Diston & Sons, Philadelphia, Pa.
C. E. Jennings & Co., 42 Murray St.,
 New York.

Millers Falls Co., 28 Warren St., N. Y.
National Saw Co., Newark, N. J.
Simonds Mfg. Co., Fitchburg, Mass.

Wedges and Shims—
Mathew Lanz & Sons, Pittsburgh, Pa.
New York Washer & Gasket Co., Brook-
lyn, N. Y.

Trow & Holden, Barre, Vt.

Wedges, Axe, Hammer and Hatchet—
Smith & Hemenway Co., 108-110 Duane
St., New York.

Walter W. Woodruff & Sons Co., Mount
 Carmel, Cf.

Wedges, Coal—
Hubbard & Co., Pittsburgh, Pa.

Wedges, Journal Bearing—
American Steel Foundries, 42 Broadway,
 New York.

Cambria Forge Co., Johnstown, Pa.

Wedges, Saw—
Hubbard & Co., Pittsburgh, Pa.

Wedges, Stave—
Hubbard & Co., Pittsburgh, Pa.

Wedges, Steel—
Hubbard & Co., Pittsburgh, Pa.
Mathew Lanz & Sons, Pittsburgh, Pa.
Transue & Williams Co., Alliance, O.

Wedges, Stone—
Hubbard & Co., Pittsburgh, Pa.

Wedges, Tie—
Hubbard & Co., Pittsburgh, Pa.

Wedges, Tool Post—
Page-Storms Drop Forge Co., Chicopee,
 Mass.

Weeders and Grass Hoes.
Horse-Power—

Cuttaway Harrow Co., Higganum, Ct.
Keystone Farm Machine Co., York, Pa.

Weeders, Garden—
American Fork & Hoe Co., Cleveland, O.
Arcade Mfg. Co., Freeport, Ill.
W. J. Clark Co., Salem, O.

Keystone Farm Machine Co., York, Pa.
Smith & Hemenway Co., 108-110 Duane
St., New York.

Wrightsville Hardware Co., Wrightsville,
 Pa.

Weeders, Lawn—
Keystone Farm Machine Co., York, Pa.
Wrightsville Hardware Co., Wrightsville,
 Pa.

Weeding Hooks—
 (See Hooks, Weeding.)

Weights, Counter Balance
Elevator—

E. E. Brown & Co., McKean & Meadow
Sta., Philadelphia, Pa.

Buchanan Foundry Co., Lebanon, Pa.

Salem Elevator Works, Salem, Mass.

Western Foundry & Sash Weight Co.,
St. Louis, Mo.

Weights, Folding Bed—
Western Foundry & Sash Weight Co.,
St. Louis, Mo.

Weights, Hitching—
S. Cheney & Co., Manlius, N. Y.

Covert Mfg. Co., Troy, N. Y.

Western Foundry & Sash Weight Co.,
St. Louis, Mo.

Wrightsville Hardware Co., Wrightsville,
 Pa.

Weights, Lead—
Western Foundry & Sash Weight Co.,
St. Louis, Mo.

Weights, Loom—
Buchanan Foundry Co., Lebanon, Pa.

Weights, Paper—
Wrightsville Hardware Co., Wrightsville,
 Pa.

Weights, Sash—
E. E. Brown & Co., McKean and Meadow
Sta., Philadelphia, Pa.

Buchanan Foundry Co., Lebanon, Pa.

S. Cheney & Son, Manlius, N. Y.

Wm. B. Walter & Co., Marquette Bldg.,
Chicago, Ill.

Western Foundry & Sash Weight Co.,
St. Louis, Mo.

Weights, Sash, Lead—
Buchanan Foundry Co., Lebanon, Pa.

Weights, Test—
Standard Scale & Supply Co., Pittsburgh.

Welders, Arc, for Repair-
ing Steel Castings—
Electric Controller & Supply Co., Cleve-
land, O.

Welding, Autogenous—
Industrial Oxygen Co., Hanover Bank
Bldg., New York.

Worcester Pressed Steel Co., Worcester,
 Mass.

Welding Compounds—
F. R. Phillips & Sons Co., Pennsylvania
Bldg., Philadelphia, Pa.

Welding, Electric—
Standard Welding Co., Cleveland, O.
Worcester Pressed Steel Co., Worcester,
 Mass.

Welding, Epurite Process—
Industrial Oxygen Co., Hanover Bank
Bldg., New York.

Welding Iron and Steel.
Thermit Process—
Goldschmidt Thermit Co., 43 Exchange
Pl., New York.

Welding Machines, Elec-
tric—
Automatic Machine Co., Bridgeport, Ct.
C. & C. Electric Co., Garwood, N. J.

Welding Machines, Flue—
Joseph T. Ryerson & Son, 18-22 Milwau-
kee Ave., Chicago, Ill.

Welding Machines for Pipe
Mills—
United Engineering & Foundry Co.,
Pittsburgh, Pa.

Welding Machines, Tire—
Long & Allstatter Co., Hamilton, O.
Williams, White & Co., Moline, Ill.

- Welding, Pipe—**
 Goldschmidt Thermo Co., 43 Exchange Place, New York.
- Welding Plates—**
 (See Plates for Welding.)
- Welding Powder for Iron and Steel—**
 Chicago Metal Reduction Co., 77 Jackson Boulevard, Chicago, Ill.
- Well Chains, Curbs, &c.—**
 (See Chains, Curbs, &c.)
- Well Machinery—**
 American Well Works, Aurora, Ill.
 John H. McGowan Co., Cincinnati, O.
- Well Machinery, Salt—**
 American Well Works, Aurora, Ill.
- Well Supplies and Tools (Points, Cylinders, Valves, Tubular Well Tools, &c.)—**
 American Well Works, Aurora, Ill.
 Barnes Mfg. Co., Mansfield, O.
 Columbus Forge & Tool Co., Columbus, O.
 A. D. Cook, Lawrenceburg, Ind.
 W. & B. Douglas, Middletown, Ct.
 Goulds Mfg. Co., Seneca Falls, N. Y.
 Hess-Snyder Co., Massillon, O.
 Humphreys Mfg. Co., Mansfield, O.
 Jarecki Mfg. Co., Erie, Pa.
 Jenkins Bros., 71 John St., New York.
 F. E. Myers & Bro., Ashland, O.
 National Tube Co., Pittsburgh, Pa.
- Wellington, Shoe—**
 Gration & Knight Mfg. Co., Worcester, Mass.
- Wharf Spikes—**
 (See Spikes, Dock, Wharf, &c.)
- Wheel Centers, Driving—**
 American Steel Foundries, 42 Broadway, New York.
- Wheel Chain—**
 (See Chain, Sprocket.)
- Wheel Molding Machines, Car—**
 (See Molding Machines, Car Wheel.)
- Wheels—**
 (See Axles and Wheels.)
- Wheels, Adamite—**
 American Emery Wheel Works, Providence, R. I.
- Wheels, Aluminum—**
 Pittsburgh Emery Wheel Co., Pittsburgh.
 Star Corundum Wheel Co., Detroit, Mich.
- Wheels, Blocks, Abrasive Polishing Rubber Compound—**
 Springfield Tire & Rubber Co., Springfield, O.
- Wheels, Automobile, Parts for—**
 Crosby Co., Buffalo, N. Y.
 John R. Keim Mills, Inc., Buffalo, N. Y.
- Wheels, Balance—**
 (See Fly Wheels.)
- Wheels, Ball Bearing—**
 Atlas Car & Mfg. Co., Cleveland, O.
- Wheels, Barrow—**
 McCabe Hager Mfg. Co., 425-427 W. 25th St., New York.
 W. J. Clark Co., Salem, O.
 Kilbourne & Jacobs Mfg. Co., Columbus, O.
- Wheels, Borundum—**
 Taylor Iron & Steel Co., High Bridge, N. J.
- Wheels, Cast Iron—**
 Sheffield Car Co., Three Rivers, Mich.
- Wheels, Cast Steel—**
 American Steel Foundries, 42 Broadway, New York.
 Thomas Prosser & Son, 26 Platt St., N. Y.
- Wheels, Car, Cast Iron—**
 Sheffield Car Co., Three Rivers, Mich.
- Wheels, Car, Chilled—**
 Atlas Car & Mfg. Co., Cleveland, O.
- Wheels, Car, Steel—**
 American Steel Foundries, 42 Broadway, New York.
 Thomas Prosser & Son, 26 Platt St., N. Y.
- Wheels, Car, Wood Center—**
 Sheffield Car Co., Three Rivers, Mich.
- Wheels, Car, Wrought Steel—**
 Thomas Prosser & Son, 26 Platt St., N. Y.
 Sheffield Car Co., Three Rivers, Mich.
- Wheels, Carborundum—**
 Carborundum Co., Niagara Falls, N. Y.
- Wheels, Castor, Soft Rubber—**
 M. B. Schenck Co., Meriden, Ct.
- Wheels, Castor, Wooden—**
 W. R. Hartigan, Collinsville, Ct.
- Wheels, Cast Steel—**
 Taylor Iron & Steel Co., High Bridge, N. J.
- Wheels, Corundum—**
 Abrasive Material Co., Philadelphia, Pa.
 American Emery Wheel Works, Providence, R. I.
 E. C. Atkins & Co., Indianapolis, Ind.
 Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
 Monarch Emery & Corundum Wheel Co., Camden, N. J.
 Northampton Emery Wheel Co., Leeds, Mass.
 Norton Co., Worcester, Mass.
 Pike Mfg. Co., Pike, N. H.
 Safety Emery Wheel Co., Springfield, O.
 Star Corundum Wheel Co., Detroit, Mich.
 Sterling Emery Wheel Mfg. Co., Tiffin, O.
 H. A. Stiles & Co., Boston, Mass.
 Superior Corundum Wheel Co., Waltham, Mass.
 Vitrified Wheel Co., Westfield, Mass.
- Wheels, Dental—**
 American Emery Wheel Works, Providence, R. I.
 Carborundum Co., Niagara Falls, N. Y.
 Norton Co., Worcester, Mass.
 Pike Mfg. Co., Pike, N. H.
 Superior Corundum Wheel Co., Waltham, Mass.
- Wheels, Electrite—**
 Star Corundum Wheel Co., Detroit, Mich.
- Wheels, Emery—**
 Abrasive Material Co., Philadelphia, Pa.
 American Emery Wheel Works, Providence, R. I.
 E. C. Atkins & Co., Indianapolis, Ind.
 Bridgeport Safety Emery Wheel Co., Bridgeport, Ct.
 Carborundum Co., Niagara Falls, N. Y.

Monarch Emery & Corundum Wheel Co.,
Camden, N. J.

New York Belting & Packing Co., 91-93
Chambers St., New York.

Northampton Emery Wheel Co., Leeds,
Mass.

Pike Mfg. Co., Pike, N. H.

Safety Emery Wheel Co., Springfield, O.

Springfield Mfg. Co., Bridgeport, Ct.

Star Corundum Wheel Co., Detroit, Mich.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

H. A. Stiles & Co., Boston, Mass.

Superior Corundum Wheel Co., Waltham,
Mass.

Vitrified Wheel Co., Westfield, Mass.

Wheels, Emery Razor—
Pike Mfg. Co., Pike, N. H.

Wheels, Fifth—
E. D. Clapp Mfg. Co., Auburn, N. Y.

Richard Eccles Co., Auburn, N. Y.

Millersburg Fifth Wheel Co., Millersburg,
Pa.

M. Seward & Son Co., New Haven, Ct.

Wheels, Fly—
(See Fly Wheels.)

Wheels, Glass Cutters'—
Pike Mfg. Co., Pike, N. H.

Wheels, India Stone—
Pike Mfg. Co., Pike, N. H.

Wheels, Manganese Steel—
Taylor Iron & Steel Co., High Bridge,
N. J.

Wheels, Oil Stone—
American Emery Wheel Works, Provi-
dence, R. I.

Mummert, Wolf & Dixon Co., Hanover,
Pa.

Wheels, Polishing—
American Emery Wheel Works, Provi-
dence, R. I.

Chas. H. Beely & Co., 15-21 Clinton St.,
Chicago, Ill.

Hanson & Van Winkle Co., Newark, N. J.

Northampton Emery Wheel Co., Leeds,
Mass.

Osborn Mfg. Co., Cleveland, O.

Safety Emery Wheel Co., Springfield, O.

Springfield Mfg. Co., Bridgeport, Ct.

Sterling Emery Wheel Mfg. Co., Tiffin, O.

H. A. Stiles & Co., Boston, Mass.

Superior Corundum Wheel Co., Waltham,
Mass.

Vitrified Wheel Co., Westfield, Mass.

Zucker & Levett & Loeb Co., 526-530 West
25th St., New York.

Wheels, Propeller—
Paul S. Reeves & Son, Philadelphia, Pa.

Wheels, Reducing—
American Steam Gauge & Valve Mfg.
Co., Boston, Mass.

Wheels, Roll Grinding—
American Emery Wheel Works, Provi-
dence, R. I.

Carborundum Co., Niagara Falls, N. Y.

Safety Emery Wheel Co., Springfield, O.

H. A. Stiles & Co., Boston, Mass.

Superior Corundum Wheel Co., Waltham,
Mass.

Vitrified Wheel Co., Westfield, Mass.

Wheels, Roller Skate—
W. R. Hartigan, Collinsville, Ct.

Pressed Steel Mfg. Co., Ridge Ave. and
Willow St., Philadelphia, Pa.

Wheels, Rubber Tired—
Geo. P. Clark Co., Windsor Locks, Ct.

Kilbourne & Jacobs Mfg. Co., Columbus, O.

Wheels, Self Oiling Car—
Ernst Wiener Co., Broad and Beaver
Sts., New York.

Wheels, Sprocket—
Bethlehem Foundry & Machine Co.,
South Bethlehem, Pa.

Billings & Spencer Co., Hartford, Ct.

Boston Gear Works, Norfolk Downs, Mass.

H. W. Caldwell & Son Co., Western Ave.
and 17th St., Chicago, Ill.

W. E. Caldwell Co., Louisville, Ky.

Chrome Steel Works, Chrome, N. J.

Geo. V. Cresson Co., 18th St. and Alle-
gheny Ave., Philadelphia, Pa.

Foot Bros. Gear & Machine Co., 24-30 So.
Clinton St., Chicago, Ill.

Jeffrey Mfg. Co., Columbus, O.

John R. Keim Mills, Inc., Buffalo, N. Y.

Kilborn & Bishop Co., New Haven, Ct.

New Process Raw Hide Co., Syracuse,
N. Y.

Poole Engineering & Machine Co., Balti-
more, Md.

Taylor Iron & Steel Co., High Bridge,
N. J.

**Wheels, Steam Valve, Radi-
ator, &c.—**

Piqua Handle & Mfg. Co., Piqua, O.

H. A. Stiles & Co., Boston, Mass.

Wheels, Steel Tired—
Thomas Prosser & Son, 26 Platt St., N.Y.

Taylor Iron & Steel Co., High Bridge,
N. J.

**Wheels, Steering, for Ves-
sels—**

Barnes Tool Co., New Haven, Ct.

**Wheels, Steering, Motor
Boat and Yacht—**

Thomas Laughlin Co., Portland, Me.

Wheels, Tire, Measuring—
Wells Bros. Co., Greenfield, Mass.

Wiley & Russell Mfg. Co., Greenfield,
Mass.

Wheels, Tracing—
Arrade Mfg. Co., Freeport, Ill.

Wheels, Traveling Crane—
Case Mfg. Co., Columbus, O.

Wheels, Trolley—
H. B. Ives Co., New Haven, Ct.

Pressed Steel Mfg. Co., Ridge Ave. and
Willow St., Philadelphia, Pa.

Wheels, Trolley, Bronze—
R. D. Nuttall Co., Pittsburgh, Pa.

Wheels, Truck—
Atlas Car & Mfg. Co., Cleveland, O.

Chase Foundry & Mfg. Co., Columbus, O.

Geo. P. Clark Co., Windsor Locks, Ct.

W. J. Clark Co., Salem, O.

Kilbourne & Jacobs Mfg. Co., Colum-
bus, O.

Arthur Koppel Co., Pittsburgh, Pa.

R. W. Whitehurst Co., Norfolk, Va.

**Wheels, Truck, Roller Bear-
ings for—**

Bancroft & Co., Philadelphia, Pa.

Wheels, Vehicle—
Kilbourne & Jacobs Mfg. Co., Columbus, O.

Wheels, Water—
(See Water Wheels.)

Wheels, Well—
Peck, Stow & Wilcox Co., 27 Murray St.,
New York.

Reading Hardware Co., Reading, Pa.

Susquehanna Casting Co., Wrightsville, Pa.

Wrightsville Hardware Co., Wrightsville,
Pa.

- Whip Sockets—**
(See Sockets, Whip.)
- Whips, Carpet—**
(See Beaters, Clothes, Carpet, &c.)
- Whiskey Scales—**
(See Gauging, Liquids.)
- Whistles, Alarm—**
Lunkenheimer Co., Cincinnati, O.
Messberg Wrench Co., Central Falls, R. I.
W. R. Ostrander & Co., 22 Dey St., N. Y.
Walworth Mfg. Co., Boston, Mass.
- Whistles, Speaking Tube—**
W. R. Ostrander & Co., 22 Dey St., N. Y.
- Whistles, Steam—**
American Steam Gauge & Valve Mfg. Co., Boston, Mass.
Ashton Valve Co., Boston, Mass.
Crosby Steam Gauge & Valve Co., Boston.
Thomas Laughlin Co., Portland, Me.
Lunkenheimer Co., Cincinnati, O.
Wm. Powell Co., Cincinnati, O.
Walworth Mfg. Co., Boston, Mass.
Walter A. Zelnicker Supply Co., St. Louis.
- White Brass—**
(See Brass, White.)
- White Lead Machinery—**
Geo. V. Cresson Co., 18th St. and Allegheny Ave., Philadelphia, Pa.
Poole Engineering & Machine Co., Baltimore, Md.
- Whitewash Brushes—**
(See Brushes, Whitewash, Horse, &c.)
- Whitewashing Machines—**
(See Paint and Whitewash Spraying Machines.)
- Wick, Candle—**
Broderick & Bascom Rope Co., St. Louis, Mo.
Estes Mills, Fall River, Mass.
A. Leach & Sons Rope Co., St. Louis.
- Wickets—**
(See Iron, Brass and Bronze, Ornamental.)
- Winches—**
Bethlehem Foundry & Machine Co., South Bethlehem, Pa.
Byram & Co., Detroit, Mich.
Chicago Pneumatic Tool Co., Fisher Bldg., Chicago, Ill.
Irving Mfg. & Tool Co., 157 Chambers St., New York.
J. G. Speidel, Reading, Pa.
Vulcan Iron Works, 28 No. Irving Ave., Chicago, Ill.
Yale & Towne Mfg. Co., 9 Murray St., New York.
- Winches, Electric—**
Northern Engineering Works, Detroit, Mich.
- Wind Mill Pumps, Regulators, Tanks—**
(See Pumps, Regulators, Tanks.)
- Wind Mills—**
(See Mills, Wind.)
- Winders, Sheet Metal—**
Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.
- Winders, Spring, Hand—**
Smith & Hemenway Co., 108-110 Duane St., New York.
- Winding Machines, Bobbin—**
(See Bobbin Winding Machines.)
- Windlasses—**
Thos. Carlin's Sons Co., Allegheny, Pa.
Bernard Gloekler Co., Pittsburgh, Pa.
Irving Mfg. & Tool Co., 157 Chambers St., New York.
- Thomas Laughlin Co., Portland, Me.
Soule Steam Feed Works, Meridian, Miss.
Wilcox, Crittenden & Co., Inc., Middletown, Ct.
- Window Caps—**
(See Caps, Door and Window, Metal.)
- Window Frames and Sash, Fire Proof—**
E. B. Badger & Sons Co., Boston, Mass.
Eller Mfg. Co., Canton, O.
Thos. W. Irwin Mfg. Co., Allegheny, Pa.
- Window Opening Devices—**
(See Openers, Sash and Window.)
- Window Pull Down Poles—**
(See Poles, Window Pull Down.)
- Window Sash Fixtures, Ship—**
Delaware Marine Supply Mfg. Co., Wilmington, Del.
- Window Screens—**
(See Screens, Window.)
- Window Spring Bolts—**
(See Bolts, Window Spring.)
- Windows, Reversible—**
Phenix Mfg. Co., Milwaukee, Wis.
- Window Stop Adjusters—**
(See Adjusters, Window Stop.)
- Window Ventilating Bolts—**
(See Bolts, Window Ventilating.)
- Wine Pitchers—**
(See Pitchers, Silver Plated.)
- Wire, Aluminum—**
Aluminum Co. of America, Pittsburgh, Pa.
Scovill Mfg. Co., Waterbury, Ct.
- Wire, Annealed Stone—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
Morgan Spring Co., Worcester, Mass.
Spencer Wire Co., Worcester, Mass.
Wickwire Bros., Corand, N. Y.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.
- Wire, Armature Binding—**
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
- Wire, Armor—**
Washburn Wire Co., Phillipsdale, R. I.
- Wire, Awl—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.
Morgan Spring Co., Worcester, Mass.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Washburn Wire Co., Phillipsdale, R. I.
- Wire, Baling—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
Grand Crossing Tack Co., Grand Crossing, Ill.
Morgan Spring Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.
- Wire, Barbed—**
American Steel & Wire Co., The Rookery, Chicago, Ill.
Dillon-Griswold Wire Co., Sterling, Ill.
Grand Crossing Tack Co., Grand Crossing, Ill.
Keystone Steel & Wire Co., Peoria, Ill.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Pittsburgh Steel Co., Pittsburgh, Pa.
Rochelle Wire Mfg. Co., Rochelle, Ill.

Wire, Basket Handle—

Morgan Spring Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Wire Basket Handles—

(See Handles, Basket, Wire.)

Wire, Belt Hook—

(See Hooks, Belt.)

Wire, Bicycle and Automobile Spoke—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wire Goods Co., Worcester, Mass.

Wire, Binding—

Driver-Harris Wire Co., Harrison, N. J.

Wire, Bolt—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Bottling, Book Binding, &c.—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Morgan Spring Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire, Brass and Copper—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Driver-Harris Wire Co., Harrison, N. J.

Dufur & Co., Baltimore, Md.

Hazard Mfg. Co., Wilkes-Barre, Pa.

U. T. Hungerford Brass & Copper Co., 497-505 Pearl St., New York.

Michigan Wire Cloth Co., Detroit, Mich.

Plum & Atwood Mfg. Co., Waterbury, Ct.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Scovill Mfg. Co., Waterbury, Ct.

Seymour Mfg. Co., Seymour, Ct.

Spencer Wire Co., Worcester, Mass.

Hugh L. Thompson, Waterbury, Ct.

Washburn Wire Co., Phillipsdale, R. I.

Waterbury Brass Co., Waterbury, Ct.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Brass Plating—

Boston Gear Works, Norfolk Downs, Mass.

Bridgeport Brass Co., 253 B'way, N. Y.

Hobson, Houghton & Co., 21 Cliff St., New York.

Riverside Metal Co., Riverside, N. J.

Waterbury Brass Co., Waterbury, Ct.

Wire, Brass Plated—

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Brick Cutting—

Morgan Spring Co., Worcester, Mass.

Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Bridge Pin—

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Wire, Bronze—

Chas. H. Bealy & Co., 15-21 Clinton St., Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Dufur & Co., Baltimore, Md.

Michigan Wire Cloth Co., Detroit, Mich.

Morgan Spring Co., Worcester, Mass.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Scovill Mfg. Co., Waterbury, Ct.

Seymour Mfg. Co., Seymour, Ct.

Waterbury Brass Co., Waterbury, Ct.

Wire, Broom and Brush—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Cary Spring Works, 240-242 W. 29th St., New York.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire Brushes—

(See Brushes, Wire.)

Wire, Buckle—

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wire, Bundling—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire, Butt—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Riverside Metal Co., Riverside, N. J.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire, Button Fastener—

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Button Hook—

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Cable Armor—

Wright Wire Co., Worcester, Mass.

Wire, Card—

American Steel & Wire Co., The Rookery, Chicago, Ill.
 Cary Spring Works, 240-242 W. 29th St., New York.
 Phosphor-Bronze Smelting Co., Ltd., 2300 Washington Ave., Philadelphia, Pa.
 Geo. W. Prentiss & Co., Holyoke, Mass.
 Riverside Metal Co., Riverside, N. J.
 Spencer Wire Co., Worcester, Mass.
 Wright Wire Co., Worcester, Mass.

Wire, Car Seal—

Geo. W. Prentiss & Co., Holyoke, Mass.
 Spencer Wire Co., Worcester, Mass.
 Washburn Wire Co., Phillipsdale, R. I.
 Wright Wire Co., Worcester, Mass.

Wire, Cast Steel—

Cary Spring Works, 240-242 W. 29th St., New York.
 Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.
 Miller & Van Winkle, Brooklyn, N. Y.
 Morgan Spring Co., Worcester, Mass.
 Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Geo. W. Prentiss & Co., Holyoke, Mass.
 Spencer Wire Co., Worcester, Mass.
 Washburn Wire Co., Phillipsdale, R. I.
 Wire Goods Co., Worcester, Mass.
 Wright Wire Co., Worcester, Mass.

Wire, Check Bower—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Wire Chisels, Collars, &c.—

(See Chisels, Collars, &c.)

Wire, Clock Spring—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Cary Spring Works, 240-242 W. 29th St., New York.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Washburn Wire Co., Phillipsdale, R. I.

Wire Cloth—

(See Cloth.)

Wire Cloth Floors—

(See Floors.)

Wire Cloth, Netting—

(See Cloth, Netting, Wire.)

Wire Cloth Weaving, to Order—

Dufur & Co., Baltimore, Md.

Wire, Coat and Hat Hook—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Coiled Spiral Spring—

Cary Spring Works, 240-242 W. 29th St., New York.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wire, Cold Drawn Steel—

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wire, Copper Insulated—

Hazard Mfg. Co., Wilkes-Barre, Pa.

Wire, Coppered Steel Spring—

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Cord—

Phosphor-Bronze Smelting Co., Ltd., 2300 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Core—

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wire, Cotter—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgport Brass Co., 233 B'way, N. Y.

Morgan Spring Co., Worcester, Mass.

Phosphor-Bronze Smelting Co., Ltd., 2300 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Wire Goods Co., Worcester, Mass.

Wire, Crimping—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Crucible Steel—

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Wire Cutting Machines—

(See Straightening and Cutting Machines, Wire.)

Wire, Damper Rod—

Grand Crossing Tack Co., Grand Crossing, Ill.

Geo. W. Prentiss & Co., Holyoke, Mass.

Wire, Dental—

Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Wire Die Reaming Lathes—

Wright Wire Co., Worcester, Mass.

Wire Draw Benches—

(See Draw Benches.)

Wire Draw Plates—

Hobson, Houghton & Co., Ltd., 21 Cliff St., New York.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Drawer Pull—

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wire, Drawn, for Ropes—

Phosphor-Bronze Smelting Co., Ltd., 2300 Washington Ave., Philadelphia, Pa.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Electrical—

(See Wires, Electrical.)

Wire, Elevator—

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Fence—

(See Fencing, Gates, &c.)

Wire, Flat—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Cary, Spring Works, 240-242 W. 29th St., New York.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Miller & Van Winkle, Brooklyn, N. Y.

Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.

Riverside Metal Co., Riverside, N. J.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire Flattening Mills—

Blake & Johnson Co., Waterbury, Ct.

Henry Perkins Co., Bridgewater, Mass.

Waterbury Farrel Foundry & Machine Co., Waterbury, Ct.

Wright Wire Co., Worcester, Mass.

Wire, Florists'—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Grand Crossing Tack Co., Grand Crossing, Ill.

Parker Wire Goods Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire Forming—

(See Wire Shapes, to order.)

Wire, Fourdrinier—

Seymour Mfg. Co., Seymour, Ct.

Wire, Galvanized Market—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Dillon-Griswold Wire Co., Sterling, Ill.

Grand Crossing Tack Co., Grand Crossing, Ill.

Keystone Steel & Wire Co., Peoria, Ill.

Morgan Spring Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Gas Tubing—

Wright Wire Co., Worcester, Mass.

Wire, German Silver—

Bridgeport Brass Co., 253 B'way, N. Y.

Driver-Harris Wire Co., Harrison, N. J.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Seovill Mfg. Co., Waterbury, Ct.

Seymour Mfg. Co., Seymour, Ct.

Waterbury Brass Co., Waterbury, Ct.

Wire, Gimlet—

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wire Goods, Bright—

Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.

John H. Graham & Co., 113 Chambers St., New York.

Grand Crossing Tack Co., Grand Crossing, Ill.

Hindley Mfg. Co., Valley Falls, R. I.

E. Jenckes Mfg. Co., Pawtucket, R. I.

Parker Wire Goods Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Spencer Wire Co., Worcester, Mass.

Turner & Stanton Co., Norwich, Ct.

Wire Goods Co., Worcester, Mass.

Wire Goods, Mill—

Hindley Mfg. Co., Valley Falls, R. I.

E. Jenckes Mfg. Co., Pawtucket, R. I.

Michigan Wire Cloth Co., Detroit, Mich.

Parker Wire Goods Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wire Goods, to Order—

Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.

Glen Mfg. Co., Ellwood City, Pa.

E. Jenckes Mfg. Co., Pawtucket, R. I.

Kilbourne Mfg. Co., Troy, N. Y.

Parker Wire Goods Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Spencer Wire Co., Worcester, Mass.

E. B. Stimpson Co., 31 Spruce St., N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Gun Screws—

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Morgan Spring Co., Worcester, Mass.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Wire, Guy, Galvanized—

Hazard Mfg. Co., Wilkes-Barre, Pa.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Wright Wire Co., Worcester, Mass.

Wire, Hair Pin—

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Hoisting—

Morgan Spring Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Heddle—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Hoisting Rope—

Hazard Mfg. Co., Wilkes-Barre, Pa.

Phosphor-Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Hook and Eye—

Bridgeport Brass Co., 253 B'way, N. Y.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Waterbury Brass Co., Waterbury, Ct.
Wire Goods Co., Worcester, Mass.

Wire, Horse Card—
Spencer Wire Co., Worcester, Mass.

Wire, Horse Nail—
Spencer Wire Co., Worcester, Mass.

Wire, Hunter—
Morgan Spring Co., Worcester, Mass.
Spencer Wire Co., Worcester, Mass.

Wire, Iron and Steel, Market, Fence, Stone, &c.—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Dillon-Griswold Wire Co., Sterling, Ill.
Dufur & Co., Baltimore, Md.
Grand Crossing Tack Co., Grand Crossing,
Ill.

Keystone Steel & Wire Co., Peoria, Ill.
Morgan Spring Co., Worcester, Mass.
Parker Wire Goods Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wickwire Bros., Cortland, N. Y.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire Kitchen Articles—
(See Kitchen Articles, Wire.)

Wire, Lock, Hat, Brush and Curtain—
Cary Spring Works, 240-242 W. 29th St.,
New York.

Miller & Van Winkle, Brooklyn, N. Y.
Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire Lockers—
(See Lockers, Office and Shop.)

Wire Machinery, Barbed—
Wilber Emery, Wilmington, Del.

Wire, Mattress—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Morgan Spring Co., Worcester, Mass.
Spencer Wire Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire Mill Plants—
Morgan Construction Co., Worcester,
Mass.

Hugh L. Thompson, Waterbury, Ct.
Turner, Vaughn & Taylor Co., Cuyahoga
Falls, O.
Waterbury Farrel Foundry & Machine
Co., Waterbury, Ct.

Wire, Music—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Cary Spring Works, 240-242 W. 29th St.,
New York.

Alfred Field & Co., 93 Chambers St.,
New York.

Hobson, Houghton & Co., Ltd., 21 Cliff
St., New York.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Waterbury Co., 69 South St., N. Y.

Wire, Nail—
Grand Crossing Tack Co., Grand Crossing,
Ill.

Morgan Spring Co., Worcester, Mass.
Phosphor Bronze Smelting Co., Ltd., 2200

Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.
Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.

Wire, Nail Set—
Kidd Bros. & Burgher Steel Wire Co.,
Alliquippa, Pa.

Pittsburgh Tool Steel Wire Co., Monaca,
Pa.

Wire, Needle—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Hobson, Houghton & Co., Ltd., 21 Cliff
St., New York.

Kidd Bros. & Burgher Steel Wire Co.,
Alliquippa, Pa.

Morgan Spring Co., Worcester, Mass.
Pittsburgh Tool Steel Wire Co., Monaca,
Pa.

Washburn Wire Co., Phillipsdale, R. I.
Wheelock, Lovejoy & Co., 23 Cliff St.,
N. Y.

Wire, Nickel—
Hermann Boker & Co., 101-103 Duane St.,
New York.

Driver-Harris Wire Co., Harrison, N. J.
Thomas Prosser & Son, 26 Platt St., N.Y.

Seymour Mfg. Co., Seymour, Ct.
Spencer Wire Co., Worcester, Mass.

Wire, Nickel Plated—
Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wire, Nickel-Steel—
Kidd Bros. & Burgher Steel Wire Co.,
Alliquippa, Pa.

Pittsburgh Tool Steel Wire Co., Monaca,
Pa.

Thomas Prosser & Son, 26 Platt St., N.Y.

Wire, Norway Iron—
Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Rail, Ball—
Grand Crossing Tack Co., Grand Crossing,
Ill.

Morgan Spring Co., Worcester, Mass.
Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.
Wright Wire Co., Worcester, Mass.

Wire, Phosphor Bronze—
Bridgeport Brass Co., 253 Broadway, N. Y.

Cary Spring Works, 240-242 W. 29th St.,
New York.

Miller & Van Winkle, Brooklyn, N. Y.
Phosphor Bronze Smelting Co., Ltd., 2200

Washington Ave., Philadelphia, Pa.

Paul S. Reeves & Son, Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway,
New York.

Spencer Wire Co., Worcester, Mass.

Wire, Piano—
American Steel & Wire Co., The Rookery,
Chicago, Ill.

Cary Spring Works, 240-242 W. 29th St.,
New York.

Alfred Field & Co., 33 Chambers St., New York.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.

Wire, Picture—
Parker Wire Goods Co., Worcester, Mass.
Spencer Wire Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.
(See also Cord, Wire, Picture.)

Wire, Pin—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.
Morgan Spring Co., Worcester, Mass.
Riverside Metal Co., Riverside, N. J.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Waterbury Brass Co., Waterbury, Ct.
Wright Wire Co., Worcester, Mass.

Wire, Pin—
Bridgeport Brass Co., 253 Broadway, N. Y.
Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Riverside Metal Co., Riverside, N. J.
Wire, Pivot—
Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Wire, Platinum—
Baker & Co., Inc., Newark, N. J.
J. Bishop & Co., Malvern, Pa.

Wire, Platinum Plated—
Ellwood Ivins Tube Works, Oak Lane Sta., Philadelphia, Pa.

Wire, Plow Steel—
Morgan Spring Co., Worcester, Mass.
Geo. W. Prentiss & Co., Holyoke, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.

Wire Pointing, Reducing and Swaging, to order—
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Wire, Reed—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.
Morgan Spring Co., Worcester, Mass.
Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.

Wire Reinforcing Fabrics for Concrete—
Clinton Wire Cloth Co., Clinton, Mass.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Wire, Resistance—
Bridgeport Brass Co., 253 B'way, N. Y.
Driver-Harris Wire Co., Harrison, N. J.
Thomas Prosser & Son, 26 Platt St., N. Y.
Riverside Metal Co., Riverside, N. J.
Arthur T. Rutter & Co., 256 Broadway, New York.
Seymour Mfg. Co., Seymour, Ct.
Washburn Wire Co., Phillipsdale, R. I.

Wire, Rivet—

American Steel & Wire Co., The Rookery, Chicago, Ill.
Bridgeport Brass Co., 253 B'way, N. Y.
Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.
Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
Seymour Mfg. Co., Seymour, Ct.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Waterbury Brass Co., Waterbury, Ct.
Wickwire Bros., Cortland, N. Y.
Wright Wire Co., Worcester, Mass.

Wire Rod Reels—

(See Reels, Wire Rod.)

Wire Rods—

(See Rods, Wire.)

Wire, Rope—

Hazard Mfg. Co., Wilkes-Barre, Pa.
Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.
Geo. W. Prentiss & Co., Holyoke, Mass.
Riverside Metal Co., Riverside, N. J.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Wright Wire Co., Worcester, Mass.

Wire Rope Blocks and

Shears—

(See Blocks, Shears.)

Wire Rope Clamps, Clips,

&c.—

(See Clamps, Clips, &c.)

Wire, Round Tempered—

American Steel & Wire Co., The Rookery, Chicago, Ill.
Cary Spring Works, 240-242 W. 23rd St., New York.

Miller & Van Winkle, Brooklyn, N. Y.
Morgan Spring Co., Worcester, Mass.
Geo. Nash Co., 24 S. Clinton St., Chicago, Ill.

Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.

Wire, Rubber Insulated—

Waterbury Co., 69 South St., New York.

Wire, Sash Cord—

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire, Screw—

Grand Crossing Tack Co., Grand Crossing, Ill.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.
Morgan Spring Co., Worcester, Mass.
Geo. W. Prentiss & Co., Holyoke, Mass.
Spencer Wire Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire, Screw Driver—

Grand Crossing Tack Co., Grand Crossing, Ill.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.
Morgan Spring Co., Worcester, Mass.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.

Wire, Screw Eye—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wire, Screw Rod—

Grand Crossing Tack Co., Grand Crossing, Ill.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Spencer Wire Co., Worcester, Mass.

Wire Shapes, to Order—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Blake & Johnson Co., Waterbury, Ct.

Hindley Mfg. Co., Valley Falls, R. I.

R. C. Jenkinson & Co., Newark, N. J.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Homer F. Livermore, Boston, Mass.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Parker Wire Goods Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Raymond Mfg. Co., Corry, Pa.

Arthur T. Rutter & Co., 256 Broadway, New York.

Sleeth-Brook & Seaman Co., 253 Broadway, New York.

F. P. Smith & Co., Sharon Hill, Pa.

Spencer Wire Co., Worcester, Mass.

E. H. Titchener & Co., Binghamton, N. Y.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Signal or Semaphore—
Grand Crossing Tack Co., Grand Crossing, Ill.**Wire, Soft, Coppered, Bright and Annealed—**

American Steel & Wire Co., The Rookery, Chicago, Ill.

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire, Span—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Wire, Special—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Driver-Harris Wire Co., Harrison, N. J.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Morgan Spring Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Phosphor Bronze Smelting Co., 2200 Washington Ave., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.

Thomas Prosser & Son, 26 Platt St., N.Y.

Riverside Metal Co., Riverside, N. J.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire Splicing Pliers—

(See Pliers, Knot Tying and Splicing.)

Wire, Spooled—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Driver-Harris Wire Co., Harrison, N. J.

Parker Wire Goods Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Arthur T. Rutter & Co., 256 Broadway, New York.

Seymour Mfg. Co., Seymour, Ct.

Spencer Wire Co., Worcester, Mass.

Turner & Stanton Co., Norwich, Ct.

Waterbury Brass Co., Waterbury, Ct.

Wire Goods Co., Worcester, Mass.

Wright Wire Co., Worcester, Mass.

Wire, Spring—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Cary Spring Works, 240-242 W. 29th St., New York.

Alfred Field & Co., 33 Chambers St., New York.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.

Riverside Metal Co., Riverside, N. J.

Seymour Mfg. Co., Seymour, Ct.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Waterbury Brass Co., Waterbury, Ct.

Wright Wire Co., Worcester, Mass.

Wire, Spring, Brass—

Bridgeport Brass Co., 253 Broadway, N. Y.

Miller & Van Winkle, Brooklyn, N. Y.

Seymour Mfg. Co., Seymour, Ct.

Wire, Steel, Covered with Nickel—

Hermann Boker & Co., 101-103 Duane St., New York.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Wire Goods Co., Worcester, Mass.

Wire, Stitching Machines—

E. B. Stimpson Co., 31 Spruce St., N. Y.

Wire Straightened and Cut—

Blake & Johnson Co., Waterbury, Ct.

Bridgeport Brass Co., 253 B'way, N. Y.

Cary Spring Works, 240-242 W. 29th St., New York.

Dillon-Griswold Wire Co., Sterling, Ill.

Garland Nut & Rivet Co., Pittsburgh, Pa.

Grand Crossing Tack Co., Grand Crossing, Ill.

R. C. Jenkinson & Co., Newark, N. J.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Kilbourne Mfg. Co., Troy, N. Y.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Parker Wire Goods Co., Worcester, Mass.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Geo. W. Prentiss & Co., Holyoke, Mass.
Seymour Mfg. Co., Seymour, Ct.
Spencer Wire Co., Worcester, Mass.
Washburn Wire Co., Phillipsdale, R. I.
Waterbury Brass Co., Waterbury, Ct.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire Straightening and Cutting Machines—
(See Straightening and Cutting Machines, Wire.)

Wire, Strand, Galvanized.

American Steel & Wire Co., The Rookery, Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis.
Grand Crossing Tack Co., Grand Crossing, Ill.

Hazard Mfg. Co., Wilkes-Barre, Pa.
A. Leschen & Sons Rope Co., St. Louis.
Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.
Washburn Wire Co., Phillipsdale, R. I.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire, Tack—
American Steel & Wire Co., The Rookery, Chicago, Ill.

Morgan Spring Co., Worcester, Mass.
Spencer Wire Co., Worcester, Mass.
Wire Goods Co., Worcester, Mass.
Wright Wire Co., Worcester, Mass.

Wire, Telephone and Telegraph, Bronze—

Bridgeport Brass Co., 253 Broadway, N. Y.
Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.
Riverside Metal Co., Riverside, N. J.

Wire, Telephone and Telegraph, Copper—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgeport Brass Co., 253 Broadway, N. Y.

Wire, Telephone and Telegraph, Iron—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Dillon-Grissold Wire Co., Sterling, Ill.
Keystone Steel & Wire Co., Peoria, Ill.
Morgan Spring Co., Worcester, Mass.

Wire, Tempered, Cast Steel—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Cary Spring Works, 240-242 W. 29th St., New York.

Miller & Van Winkle, Brooklyn, N. Y.

Morgan Spring Co., Worcester, Mass.

Geo. W. Prentiss & Co., Holyoke, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wright Wire Co., Worcester, Mass.

Wire, Tinned—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Bridgeport Brass Co., 253 B'way, N. Y.

Driver-Harris Wire Co., Harrison, N. J.

Morgan Spring Co., Worcester, Mass.

Philadelphia Steel & Wire Co., 525 Commerce St., Philadelphia, Pa.

Geo. W. Prentiss Co., Holyoke, Mass.

Seymour Mfg. Co., Seymour, Ct.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire, Tinned, Bronze—

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Seymour Mfg. Co., Seymour, Ct.

Wire, Transom, Rod—

Grand Crossing Tack Co., Grand Crossing, Ill.

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Washburn Wire Co., Phillipsdale, R. I.

Wire Trays, Paper—

(See Trays, Wire, Paper.)

Wire, Trolley, Copper—

Bridgeport Brass Co., 253 Broadway, N. Y.

General Electric Co., Schenectady, N. Y.

Wire, Umbrella—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Morgan Spring Co., Worcester, Mass.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Washburn Wire Co., Phillipsdale, R. I.

Wire, Vanadium—

Pittsburgh Tool Steel Wire Co., Monaca, Pa.

Wire, Vestibule Rod—

Morgan Spring Co., Worcester, Mass.

Spencer Wire Co., Worcester, Mass.

Wire, Watch—

Cary Spring Works, 240-242 W. 29th St., New York.

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Washburn Wire Co., Phillipsdale, R. I.

Wire Wax, for Core Vents—

Alfred Field & Co., 93 Chambers St., New York.

Wire Weaving—

American Steel & Wire Co., The Rookery, Chicago, Ill.

Morgan Spring Co., Worcester, Mass.

Phosphor Bronze Smelting Co., Ltd., 2200 Washington Ave., Philadelphia, Pa.

Riverside Metal Co., Riverside, N. J.

Arthur T. Rutter & Co., 256 Broadway, New York.

Spencer Wire Co., Worcester, Mass.

Wickwire Bros., Cortland, N. Y.

Wright Wire Co., Worcester, Mass.

Wire White—

Seymour Mfg. Co., Seymour, Ct.

Wire Window Guards—

(See Guards, Wire Window.)

Wire, Wollaston, Silver Covered Platinum, for Wireless Telegraphy—

Baker & Co., Inc., Newark, N. J.

Wire, Wood Bit—

Kidd Bros. & Burgher Steel Wire Co., Aliquippa, Pa.

Morgan Spring Co., Worcester, Mass.

Wire Work, Special—

(See Wire Work, to Order.)

Wire Work, to order—

Anchor Post Iron Works, 42 Park Row, New York.

Baird Machine Co., Oakville, Ct.

Blake & Johnson Co., Waterbury, Ct.

Buffalo Wire Works Co., Buffalo, N. Y.

City Forge & Iron Works, Boston, O.

Clinton Wire Cloth Co., Clinton, Mass.

Edward Darby & Sons, 233-235 Arch St., Philadelphia, Pa.

Dufur & Co., Baltimore, Md.

